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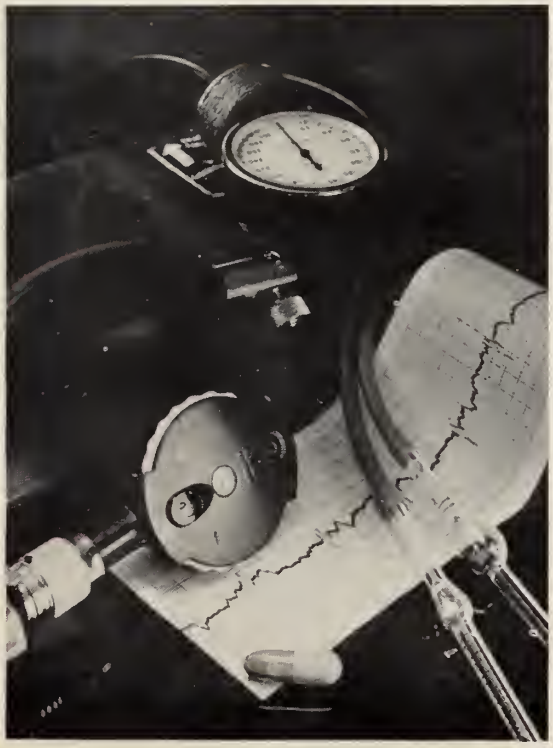
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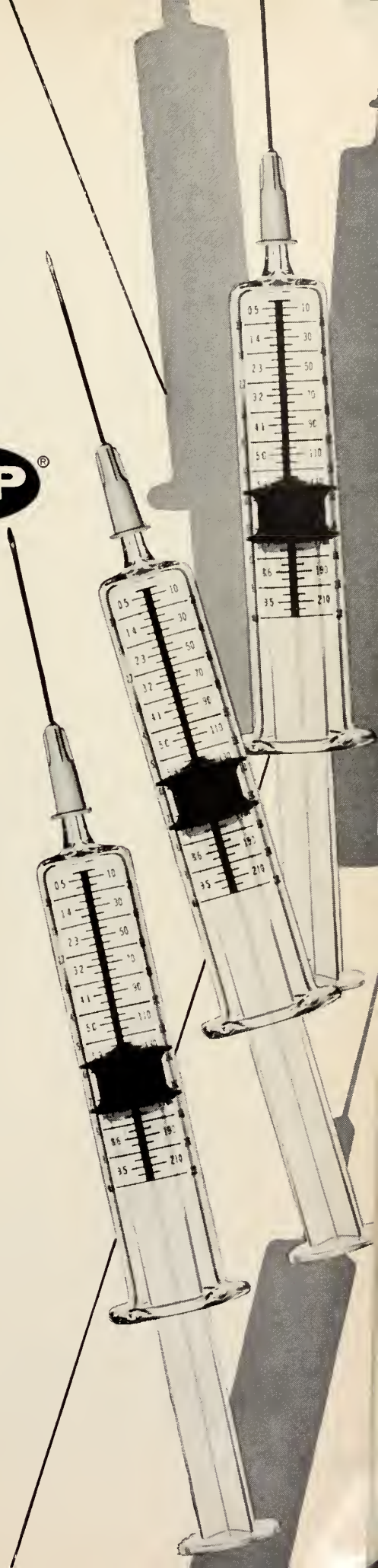
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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • July, 1967 • No. 1

Office of Publication

19 So. Jackson St. Montgomery, Ala. 36104

Subscription Price $5.00 Per Year

$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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Managing Editor

L. P. Patterson Montgomery

Assistant Managing Editor

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President's Page



Dr. E. Bryce Robinson, Jr.

We are citizens first and physicians second. For the most part we do an excellent job in discharging our responsibilities as physicians, but on too many occasions we do not fully discharge our obligations as citizens. We have particular reference to our interests and participation in politics.

We fully realize that there are some of you who believe that physicians should not involve themselves in the political arena. Nothing could be further from the facts of the situation—our proud profession is already engulfed and embroiled in politics whether we like it or not. Doctor Donovan F. Ward, past president of the American Medical Association, has written an article: "Is It Too Late?". Among other things, he states "wherever we turn, the spectre of federal medicine casts its shadow." He then asks several questions and every physician in Alabama should also ask himself:

What can we do to preserve what is left of our right to practice medicine as we believe is in the best interest of our patients?

What can we do to preserve our right to make decisions on patient care based solely upon our professional judgment?

How can we, as physicians, prevent a further invasion of medicine?

We can readily see there are no simple answers to these questions. We agree emphatically with Doctor Ward when he indicated that the answers are not coming from physicians getting together over a cup of coffee and complaining about the terrible state of affairs their profession is in. It is now high time for us to take action. If we don't, it *can* be "too late" for our profession.

What can we do? First and foremost we should always vote and support and work for the candidate of our choice, irrespective of party. Equally important is that we should participate in the American Medical Political Action Committee (AMPAC) and the related state PAC, the Alabama Medical Political Action Committee (ALAPAC). Both are non-partisan organizations.

We are confident that many Alabama physicians would be astounded at the success ALAPAC has had in recent years. These achievements are all the more remarkable when one considers how relatively few Alabama physicians have become involved in the PAC movement. ALAPAC had its most successful political year in 1966, yet only one out of every ten doctors in Alabama was affiliated with the organization. It is most encouraging that 1967 memberships are running 50 per cent ahead of the previous year. This suggests that more and

(Continued on Page 7)



"All Interns are Alike"

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PRESIDENT'S PAGE

(Continued from Page 4)

more Alabama physicians are waking up to the cold, hard fact that they need ALAPAC as much as ALAPAC needs them. However, this is not enough—we should be as near total involvement as possible. If you are not now a member, join t o d a y ! The cost is nominal! Also, take out a membership in your wife's name! Then in the words of Doctor Frank Coleman, former Chairman of the American Medical Political Action Committee (AMPAC), "the solution of keeping politics out of medicine no longer lies in asking Congress to act wisely. It lies in helping to elect a wise Congress."

This writer, along with several others from Alabama, can fully vouch for the effectiveness and results these organizations obtain. We were privileged to attend an excellent AMPAC Workshop in Washington, D. C. June 3rd and 4th where, among others, outstanding United States Senators and Representatives from both parties participated.

Support ALAPAC Today! Information can be obtained by writing ALAPAC, P. O. Box 51, Montgomery, Alabama 36101.

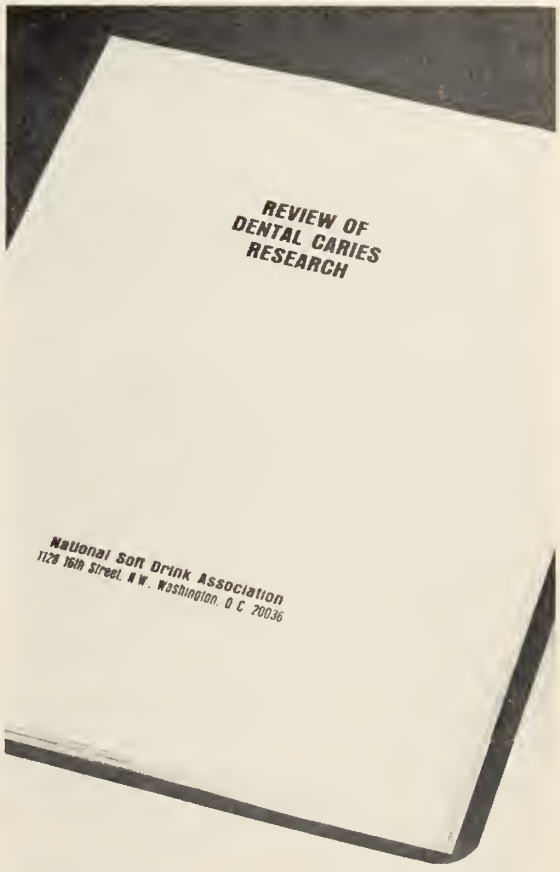
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The Woman's Auxiliary

In Ecclesiastes 38: 1 and 3 of The Apocrypha we read these words concerning the physician: "Honour a physician with the honour due unto him for the uses which ye have of him; for the Lord hath created him. The skill of the physician shall lift up his head and in the sight of great men he shall be in admiration."

Many of us remember with great admiration our childhood family doctor, who with few tools to work with, gave us warmth and courage through his unhurried, sympathetic and devoted attention.

Scientific and technologic advances in medicine over the past 50 years have made this type of medical practice impossible in our present day. A few years ago it took one doctor to tell a parent their child was a blue baby and would certainly die. Today it takes a team of physicians to tell a parent their child is a blue baby and with proper treatment and care the condition can be corrected and their child can live a normal life.

As the scientific side of medicine has changed, so has the human side. Through means of radio, television and feature articles in magazines and newspapers, the public has been educated and informed—sometimes misinformed—about diseases and their treatment. Today the general public is more health conscious than ever before.

These scientific and social changes have brought about a change in the image of the physician. Today, instead of being held in honor and admiration, the physician, and the medical profession as a whole, is facing many challenges and much criticism. A startling example of this is the recently published book, THE DOCTORS, written by Martin Gross. Mr. Gross opens his book with the statement "It is not the purpose nor is it within the power of this book to destroy the reputation of the American doctor." He then devotes the entire book to try and do just that. Mr. Gross not only attacks the reputation of the physician, but attempts to discredit the physician's wife as well. Of her



Mrs. James C. Guin, Jr.

he says "The 'empress' of the medical establishment has a better, firmer position than she has ever possessed. Most are pleased and secure in it, smilingly acknowledging the status acceptance from other women."

This is just one of many attacks being made upon the medical profession today. Challenges and criticisms are coming from many directions and the image the physician and his wife creates and presents to others depends on the manner in which we handle the challenges and respond to the criticisms.

With this in mind, the theme of the Woman's Auxiliary for this year is "Meet The Challenges With Responsibility." We dedicate ourselves to the task that lies ahead, keeping ourselves ever informed of community needs and political issues, and ever ready to serve the Medical Association in whatever way you may need our help.

Most sincerely,

Kay Guin

Mrs. James C. Guin, Jr.
President



No Relief From Physician Pressures

The cost of medical services, which went up about 10 per cent in a recent nine-month period, is likely to continue rising, reports The Morgan Guaranty Survey.

The bank publication cities greatly increased demand for medical care as the key factor in the long-term upward trend of health service prices. Demand has been stimulated, the Survey notes, by expansion over the years of philanthropic and public-assistance programs that provide "free" or minimal-cost medical care, by the growth of health-insurance coverage, and, most recently, by the Medicare and Medicaid programs.

The "enormous" growth in demand for medical services has occurred, the article says, in the face of "many stubborn obstacles to the rapid expansion of supply." The health industry already employs more people than the steel, automobile, and aircraft industries combined, but there is a "chronic shortage" of medical personnel, both professional and non-professional.

The number of students receiving medical degrees is expected to increase from 7,400 in 1965 to 10,000 in 1975, the Survey reports, and there probably will be an even sharper acceleration in the training of nurses and allied health workers. "Even with intensified training efforts, however," it continues, "there still can be relatively little confidence that the complement of medical and related personnel will be numerous enough any time soon to relieve the pressures of demand."

About four-fifths of the U. S. civilian population is now covered by some form of medical-care insurance, the article notes, compared with less than one-tenth before World War II. "The evidence is overwhelming," it says, "that people who have health insurance make appreciably more use of medical services than people who have no coverage."

The sharpest rise in medical service costs has come since introduction of the Medicare and Medicaid programs, beginning at mid-1966. In the nine months ending last March, according to the Bureau of Labor Statistics, the prices of all medical services rose at an annual rate of 10 per cent. In the year preceding the start of Medicare, the rise was 4.7 per cent.

The Survey also cites increases compiled by the Bureau of Labor Statistics for several components of the medical services price index during the first nine months of Medicare's operation:

The average daily charge for a hospital bed rose at an annual rate of more than 25 per cent, which was three times the rate of advance in the preceding year;
Doctors' fees were up 7.9 per cent, compared with 5.7 per cent the year before;
The rate of increase in hospital operating-room charges and X-ray fees "has accelerated markedly."

The prospect of continued personnel shortages in the health industry has spurred efforts to increase productivity, the survey states. As an example, it notes that "doctors

have found ways to treat more patients per hour or per working day. This has reflected such things as the efficacy of powerful new drugs, increased use of auxiliary personnel, a shift from treatment in patients' homes to treatment in offices, hospitals, and clinics, and a tendency for groups of physicians to work together under one office roof, sharing equipment and personnel."

Is "Ben Casey" To Blame?

"It may be stated almost axiomatically that the less personal relationship between the patient and the physician, the more likely the patient is to think in terms of suing for damages when he is dissatisfied with the results of treatment."

So declares a booklet recently published by the U. S. Department of Health, Education and Welfare concerning the alarming rise in malpractice suits filed against physicians in this nation.

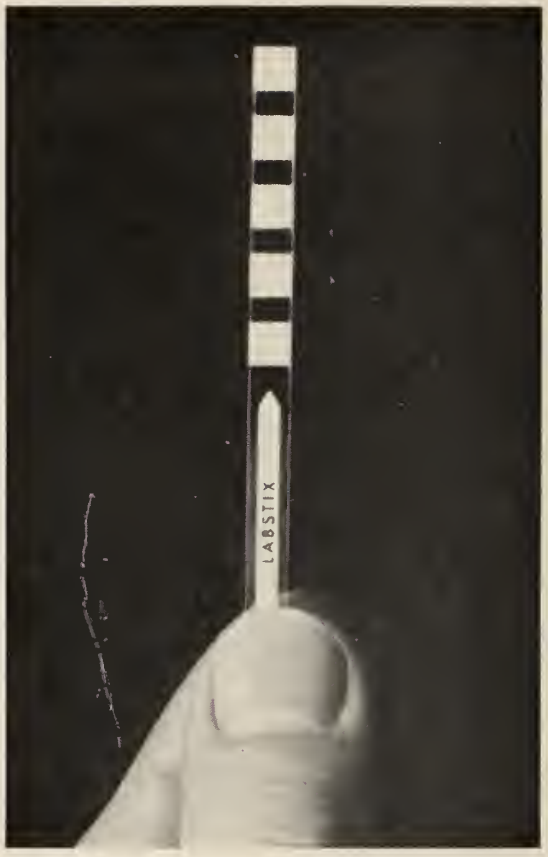
Not only have the number of suits increased, but there has been an even greater increase in the size of judgments made in such cases. There was a time when a physician with $25,000 in malpractice insurance was adequately covered; today coverage of $300,000 is more often the rule.

The question of malpractice suits was the topic of the lead article in a recent issue of The National Observer, and one of the most meaningful points made was that the threat of a malpractice suit was having enormous impact on the practice of medicine.

For example, some doctors today admitted privately they are tempted to stick to older, less risky treatment of a patient rather than resort to newer and possibly more effective treatment which might leave them open for a malpractice suit.

Aside from the suggested breakdown in patient-physician relationship, still another suggested reason for the rise in suits is simply called the "Ben Casey" factor, in refer-

(Continued on Page 11)



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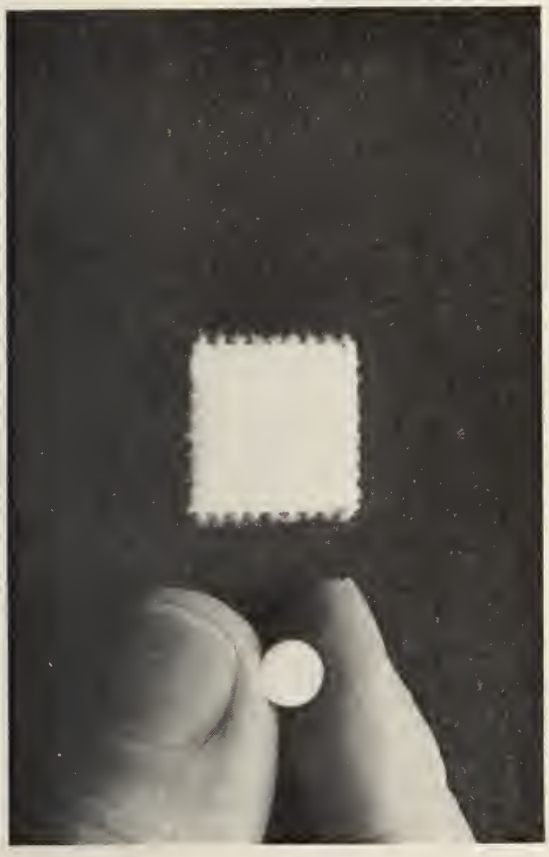
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IS "BEN CASEY" TO BLAME?

(Continued from Page 10)

ence to the TV show. Due largely to television, there has been a deepening interest by the public of medical subjects and several of the most dramatic stories on "Ben Casey" involved malpractice suits or the threat of same.

Still another suggested reason for the increase in malpractice cases is nothing more than money. There is evidence that some cases have been initiated simply because the patient or his family did not want to pay the bill.

It speaks well of the medical profession of Alabama that this national problem does not affect them. There has been no upsurge of malpractice cases in Alabama. To the contrary, only recently there was a reduction in premiums for malpractice insurance in this state. Compare this with the fact—confirmed by the National Bureau of Casualty Underwriters—that nationally malpractice insurance premiums have gone up 70 per cent in the past 12 years.



Reprinted from **THE NEW PHYSICIAN**

Our Part-Time Under-Used Hospitals

The shortage of hospital beds is rapidly increasing. Utilization Committees have become mandatory to prevent unnecessary occupancy. Some hospitals are already expanding their bed capacities.

Illness, injury, suffering and death PERMIT NO MORATORIA on Saturdays, Sundays and Holidays. The Medical and Nursing Professions have without question always adapted working schedules to this fact.

In contrast, prevailing hospital tradition suspends all but emergency services on weekends and holidays.

Enlarging the technical staffs of diagnostic and treatment services, including x-rays, laboratories and operating rooms to provide full activity EVERY SINGLE DAY would increase the functioning capacity of any hospital by at least 20%. It requires no mathematical ingenuity to recognize that such action would shorten the hospital stay of many patients and result in increased bed utilization.

Critical bed shortages in many sections of our country demand abandonment of this wasteful hospital tradition.

Expansion of hospital service staffs should be carried out, no matter what the cost, to provide maximum use of what are now our part-time hospitals.

—*Westchester Medical Bulletin*

Auto Industry Asks Medicine To Help Design Safer Automobiles

In the near future you may find yourself treating fewer and fewer automobile accident victims.

The improvements being made in auto safety design features will greatly increase the chances of auto accident victims escaping injury.

The auto industry is now calling upon medicine for help in designing safer autos. The Engineering Advisory Committee of the Automobile Manufacturers Association recently requested medical advice in setting up an order of importance for design changes which would help reduce injury and death to automobile occupants involved in collisions.

They met in Detroit with the American Medical Association's Committee on Medical Aspects of Automotive Safety which provided the Automotive Manufacturers Association with a list of priorities to serve as a guide toward improving safety designs of automobiles.

Three programs were selected as a logical starting point in providing the auto occupant with a reasonable amount of safety. These programs, in order of priority, are:

1. An overall seat design development to include a lap belt, upper torso restraint (involving both shoulders equally) and adequate head protection.

2. Increasing the energy absorptive quality of the passenger compartment.

3. Further reduction of protruding objects within the automobile.

H. A. Fenner, M. D., chairman of the American Medical Association's Committee, complimented the Automobile Manufacturers Association for taking the initiative in obtaining the medical point of view on the subject.

"While federal regulations undoubtedly will soon require many safety items including most of those above," Doctor Fenner says, "the automobile companies, through research of their own, can provide the American public with even safer automobiles than the federal regulations will demand."

around the state

Who's Who in Alabama's Laboratory World

St. Margaret's Hospital in Montgomery is most fortunate in having Dr. Walker B. Sorrell as pathologist. Dr. Sorrell is the source of much inspiration and dedication of Montgomery's medical technologists. Several programs on continuing education for medical technologists have evolved under his leadership. He is aware of new concepts and accomplishments in the field of laboratory medicine and incorporates these into the tested and proven procedures. Dr. Sorrell is highly respected in his field, and his services are in great demand in this area. His willingness to give his contributions to his profession of pathology, and to the medical technologist profession are invaluable.



Dr. Walker B. Sorrell

Dr. Sorrell was born November 30, 1919 in Ozark, Alabama. He served five years in the Army Service from 1940-1945, and was discharged as Major, Corps of Engineers in 1945. In 1948 he received a B. S. from the University of Alabama, after which he received an M. D. degree from the University of Tennessee in 1950. He served a rotating internship at Mobile City Hospital, Mobile, Alabama in 1950-1951.

He served his residency in Anatomic and Clinical Pathology from 1951-1955 in New Orleans, Louisiana, after which he served one year in Charity Hospital under Emma S. Moss, M. D., pathologist. Following this he was at the V. A. Hospital for one year under Joe Z. Zeisman, M. D., pathologist. The following two years were spent in the Department of Pathology, Tulane University, under Charles E. Dunlap, M. D., pathologist; six months of this time was spent in the Department of Internal Medicine doing Hematology under Charles E. Sprague. He was certified by the American Board of Pathology and Anatomic Pathology in 1955 and was certified by the American Board of Pathology and Clinical Pathology in 1956. In 1955-1956 he served for one year as assistant pathologist at Ochsner's Foundation Hospital, New Orleans, Louisiana. On March 14, 1957 he became the Director of Medical Laboratory at St. Margaret's Hospital, Montgomery, Alabama, and about a year later became the Director of the School of Medical Technology, St. Margaret's Hospital, Montgomery, Alabama, which was set up under his direction. (This is the only school in Montgomery.) He became the Director of the Pathology Laboratory which he established in June of 1960.

Dr. Sorrell is married to the former Virginia White who is a medical technologist and they have three children. In his leisure he enjoys golfing.

(Continued on Page 14)



Making committee reports to the Board of Trustees June 11 Meeting are (left to right) Chairmen Dr. J. M. Slaughter, Fairfield, Committee on Socio-Economics; Dr. C. A. Lightcap, Mobile, Committee on Insurance; Dr. Margaret S. Klapper, Birmingham, Committee on Medical Education and Hospitals. Dr. Paul S. Burleson, Birmingham, recaps the meeting of providers regarding Title XIX; and AMA Representative Whalen Strobhar makes comments on AMA services provided State Medical Associations.



Dr. E. L. McCafferty, Jr., Mobile, reports on the Committee on Legislation. Drs. John D. Peake, Mobile, and F. M. Phillippi, Jr., Brewton, follow his report.



Dr. S. J. Campbell, Birmingham, Chairman of the Subcommittee on Annual Session, outlines the plan of action for the 1968 Birmingham Annual Meeting. Listening intently is Dr. H. G. Hodo, Jr., Fayette.



Pharmaceutical, Nursing, Hospital and MASA representatives met June 8 at the Central Office to discuss Title XIX.



Dr. E. B. Glenn, Birmingham, comments on the excellent AMPAC workshop held in Washington, D. C. Eight representatives from Alabama attended the meeting. Drs. Sidney J. Williams, Livingston, and M. Vaun Adams, Mobile, are seated at the table.

(Continued on Page 19)



New view of an oral contraceptive at work

Although suppression of ovulation remains the primary mode of action of oral contraceptives, newer knowledge indicates that products like Norinyl-1— a combination of both low-dosage progestogen and estrogen for the full treatment cycle—may provide multiple action that helps explain their unexcelled record of contraceptive effectiveness. This report explores the possible secondary protective mechanisms offered by combined hormonal administration.

Accumulating evidence has indicated that sparse, highly viscous cervical mucus has a possible adverse effect on the motility and survival of spermatozoa.

The estrogen-opposing progestational ingredient of Norinyl-1 (norethindrone 1 mg. with mestranol 0.05 mg.) changes the usual mid-cycle picture of a thin, watery cervical mucus. The result—a built-in barrier that appears to inhibit sperm from reaching the ovum should one be released. The inset in the adjoining photograph shows immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

See last page for contraindications, precautions, side effects and dosage.

How the estrogen-opposing action of Norinyl-1 creates cervical mucus that may be hostile to sperm penetration

Normally, estrogen activity during the fertile midcycle stimulates the production of a profuse and watery cervical mucus that permits maximum sperm motility and promotes penetration.

But what happens when Norinyl-1 is administered? Its potent progestogen, norethindrone, opposes estrogen stimulation of cervical mucus. Consequently, the amount of mucus decreases and its viscosity increases. This results in a sparse but thick mucus barrier that appears to diminish the vitality of the sperm and to impair its powers of penetration.

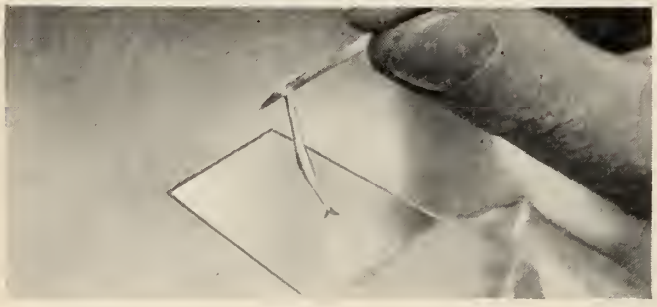
The role of viscous cervical mucus as a secondary action of Norinyl-1

In a report on 89 patients taking this medication,* cervical mucus obtained from cycle day 5 to cycle day 29 appeared scant and thick and exhibited little or no Spinnbarkeit.

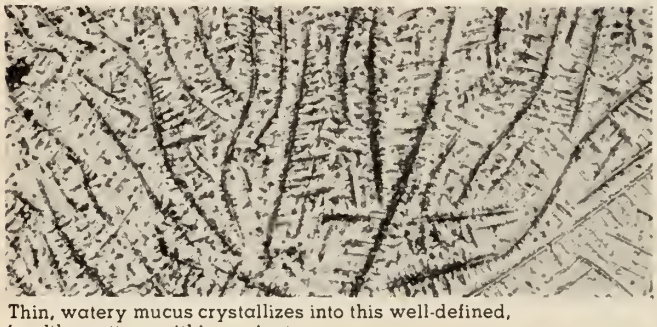
In the opinion of this investigator, the effect on cervical mucus may be sufficient to prevent conception.

*Cohen, M. R.: Symposium: Mechanisms of Action of Low Dosage Oral Contraceptive, Yale University Medical Center, New Haven, Conn., April 6, 1967

Normal cervical mucus at midcycle in untreated patient is known to permit sperm motility... promote sperm penetration.



Cervical mucus is thin and watery with a stretchability (Spinnbarkeit) of 15 to 20 cm.



Thin, watery mucus crystallizes into this well-defined, fernlike pattern within a minute.

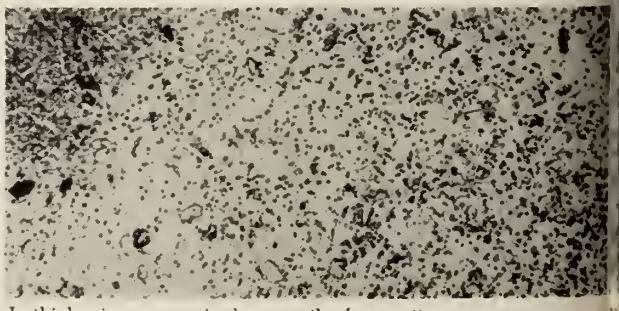


Spermatozoa appear healthy, are active and freemoving.

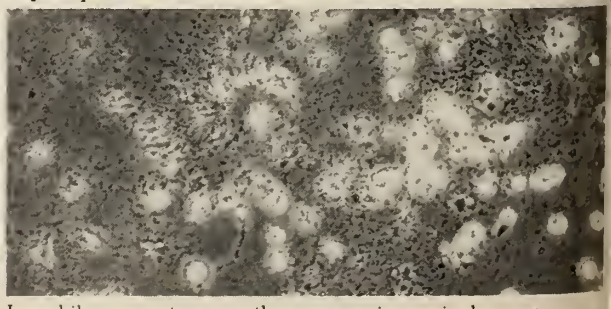
Viscous cervical mucus at midcycle produced by Norinyl-1 appears to impair sperm vitality... inhibit penetration.



Cervical mucus is scanty, thick and viscous. Spinnbarkeit is 1 cm. or less.



In thick, viscous cervical mucus the fern pattern is poorly defined or absent.



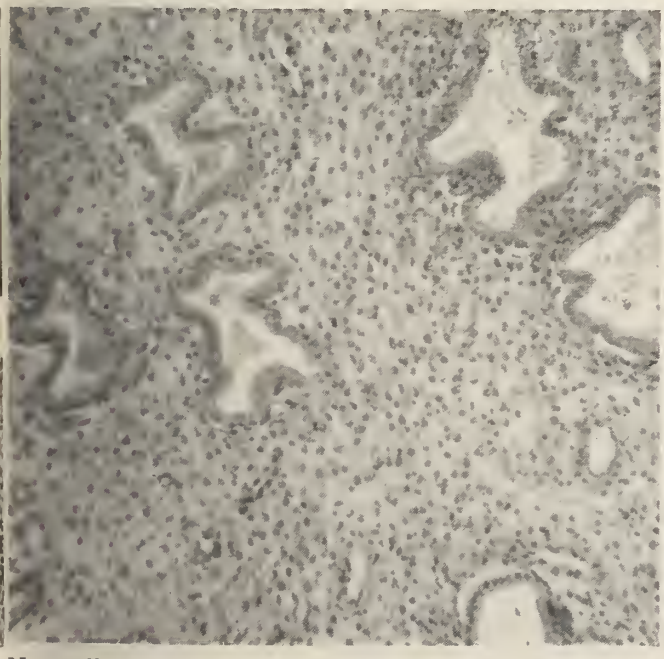
Immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

How Norinyl-1 alters normal endometrial responses– another possible protective mechanism

Let us suppose that an ovum is released—as occurs in an occasional, rare case—and somehow a sperm succeeds in penetrating the cervical mucus barrier. Should this come about, one additional action of Norinyl-1 may protect the patient from unwanted pregnancy. The theory is that progestogen intake makes endometrial tissue unreceptive to implantation.

Endometrium of untreated patient

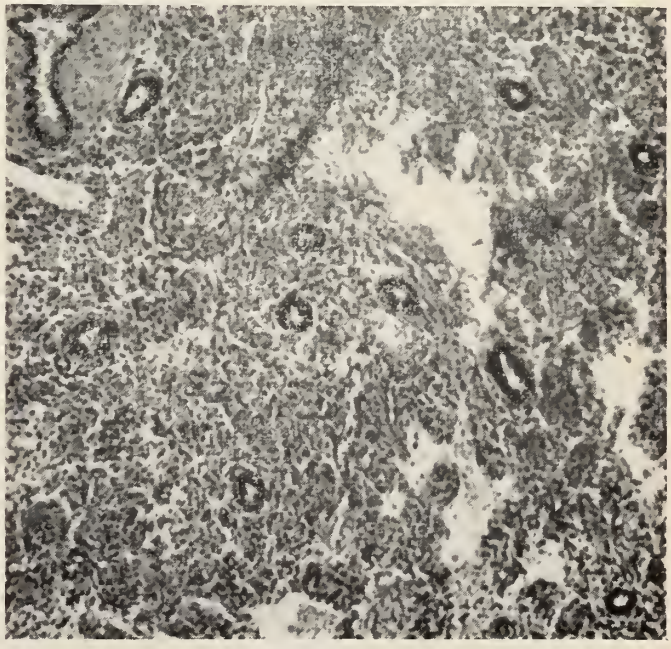




Normally, the endometrium progresses through a proliferative phase stimulated by estrogen and a secretory phase stimulated by progesterone. During the secretory phase the endometrium is receptive to the fertilized ovum.

Endometrium produced by Norinyl-1





When Norinyl-1 is administered its progestogen component—norethindrone—accelerates the secretory phase and suppresses glandular and vascular development.

new Norinyl-1® tablets

(norethindrone 1mg. c mestranol 0.05mg.)

See last page for contraindications, precautions, side effects and dosage.

effective fertility control
on half the previous dosage

maintains ratio
of the established
norethindrone/mestranol
combination

lower cost

new Norinyl-1®

(norethindrone 1mg. c̄ mestranol 0.05mg.) tablets

Reduction of oral contraceptive dosage to lowest effective levels ha become a well-accepted principle of conservative medical practic In keeping with this view, Norinyl is now available in a new strengt in which *both* norethindrone and mestranol are reduced 50 percen Studies show that Norinyl-1 achieves fertility control with only 1.0 mg. of combined progestogen and estrogen per tablet.

Norethindrone was first reported for use as a progestational agent i human beings in 1955. Norethindrone 2 mg. with mestranol 0.1 mg., a an oral contraceptive, is currently in use by over 2,000,000 wome Clinical experience now establishes that Norinyl-1 also amply mee the criteria of reliability and safety.*

*Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965.

PRESCRIBING INFORMATION

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of Norinyl-1 in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with Norinyl-1. Therefore, if such tests are abnormal in a patient taking Norinyl-1, it is recommended that they be repeated after the drug has been withdrawn for 2 months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibroids may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac, or renal dysfunction, require careful observation. 5. Although a cause and effect relationship has not been established, Norinyl-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged Norinyl-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Norinyl-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. A cause and effect relationship has not been demonstrated. 11. Because of the effects of estrogens on epiphyseal closure, Norinyl-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask the onset of the climacteric. 13. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma, breast changes (tenderness, enlargement and secretion), loss of scalp hair, change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, erythema multiforme, erythema nodosum, hemorrhagic eruption, migraine, rash (allergic), itching, rise in blood pressure in susceptible individuals, mental depression.

The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has not been established: thrombophlebitis, pulmonary embolism, neurooocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: i creased bromsulphalein retention and oth hepatic function tests, coagulation tests crease in prothrombin, factors VII, VIII, IX a X), thyroid function (increase in PBI and bu nol extractable protein-bound iodine and crease in T^3 values), metapyrone test, pregna diol determination.

Other side effects reported to have occurr in association with use of this drug are di ness, hirsutism, pains in legs, back, chest a abdomen, dysuria, drowsiness, vaginal d charge, libido increased and decreased, er tions, hypermenorrhea, hypomenorrhe increased appetite, G.U. infections, varic veins, abdominal fullness, acne, headac nervousness, allergies, blurred vision, pain eyes, and itching in eyes. *For complete clinic data, see package insert.*

Dosage and Administration: 1. One tablet Norinyl-1 is administered orally for 20 da beginning on day 5 of the menstrual cyc (Count day 1 of the cycle as the first day menstrual bleeding.) Repeat this dosage sch ule for each cycle. 2. If no menstrual peri occurs after a cycle of treatment (20 tablets) which patient adhered to the schedule, the p tient must be instructed to resume taking t Norinyl-1 tablets 7 days after the previous day course was completed. For example, if t last pill of a previous cycle had been taken a Sunday, then a new cycle of treatment shou begin on the following Sunday. 3. In the p partum woman, it is recommended that t first cycle of treatment should begin on da of the first menstrual cycle. However, Norin should not be administered during lactation.

Availability: Norinyl-1 (norethindrone 1 with mestranol 0.05 mg.)—Dispensers of 20 a 60 and bottles of 250 tablets.

norethindrone — an original steroid from

SYNTEX LABORATORIES INC., PALO ALTO, CALIF.



The Committee on Public Relations met June 7 and covered a long agenda in record time. Left to right are Dr. S. B. Word, Birmingham; Tim Norbeck and Whalen Strobhar, AMA representatives (Norbeck is a new AMA staff member); Dr. Jack Brock, Dadeville; Dr. H. C. Mullins, Jr., Fairhope; Dr. L. D. McLaughlin, Ozark; and Dr. T. Riley Lumpkin, Enterprise.

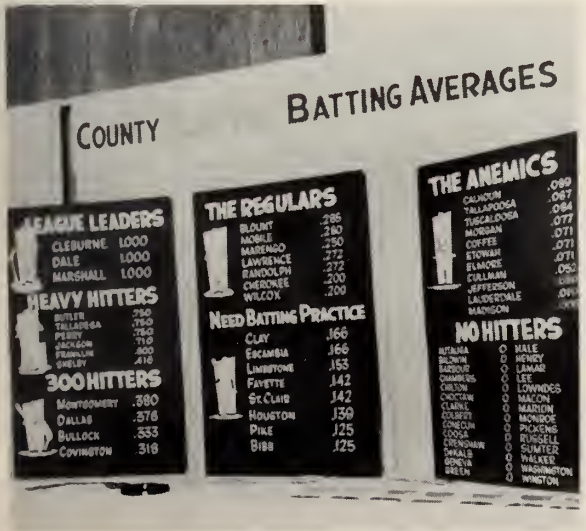




Dr. F. M. Phillippi, Jr., Brewton, and Dr. H. H. Hutchinson, Montgomery, concur with the urgency of one of the Public Relations Recommendations, that a Committee on The Medical Aspects of Sports be set up and set into action as soon as possible.



Dr. Grover C. Murchison, Jr., Montgomery, AAGP president, chats with AAGP National President-Elect, Dr. George Burket, Kingman, Kansas. Dr. Burket was the luncheon speaker for the June 8 AAGP session.



ALAPAC booth displayed at the AAGP annual meeting. It attracted and caused much comment.



Dr. Carl A. Grote, Jr., Huntsville, has been named Editor of the ALABAMA GENERAL PRACTITIONER, soon to become the ALABAMA FAMILY PHYSICIAN.



Rosters, Rosters everywhere. At the time of publishing the JOURNAL, the MASA roster was being assembled and the photo above attests to what a big job it was. The roster was printed and assembled by John Frazier, MASA staff member.



Dr. Hubert O. Williamson, S. Carolina, Assistant Professor in Obstetrics and Gynecology, was the featured speaker at the Montgomery County Medical Society meeting. He gave a slide presentation on Oral Hormones or "The Pill."



"Whadja put in it?" Dr. Robert Parker, Montgomery, asks pretty staff member, Miss Linda Martin.



"Tennis Anyone?" or is it Bwana Smith just returning from a Safari? No—it's Dr. Wm. L. Smith, Montgomery, Editor of the JOURNAL on his day off, caught in a relaxing moment while passing through the central office.



Montgomery CMS doctors relaxing at their monthly meeting.



Dr. S. R. Hill, Jr., Dean of the Medical College, presenting the Dean's Award to graduating Montgomerian Dr. William T. Branch, Jr.

Medical Graduates of 1967 Announced by Medical College of Alabama

The Medical College of Alabama in Birmingham, announces that 76 senior students received the Doctor of Medicine degree from the Medical College in the graduating class of 1967.

The graduating medical seniors received the hoods symbolic of their disciplines at the Medical College Honors Convocation, held in Birmingham May 24 and May 25, respectively.

Degrees were conferred at the June commencement exercises of the University of Alabama on May 28 at the Tuscaloosa campus.

(. . . NOTE: Graduates of the Medical College of Alabama, Class of '67, are *LISTED BY CITY*)

Robert E. Hill, Alpine; John C. Blythe, Alexander City; Samuel H. Chastain and Ronald M. Stewart, Anniston; Bonnie Maloy Embry, Bessemer; George W. Bailey, D. Anthony Bedsole, M. Richard Cross, Thomas A. Gaskin, III, W. Allen Oaks, Larry W. Morehead, W. Cleve Posey, Christopher S. Parker, E. Max Sanders, Charles P. Shook, III, Vernon Skoog, Thomas C. Smitherman, Richard S. Wayne, T. David Woodman, Robert L. Green, M. Kline Hamlett, Gary G. Holland, Walter C. Hulon, Norman A. Latoma, C. Rush McInnis, Jr., and Carl W. Martens, Birmingham;

James M. Lee and Donald E. Milner, Boaz; Bruce W. Russell, Cordova; Malcolm E. Edwards, Jr., Decatur; Lennox W. Larrimore, Dickinson; Tom B. Vaughan, Jr., Elba; Ward H. Broadfield, Jr., Eufaula; H. Chester Boston, Jr., and James B. Kelly, Florence; Knut E. Mueller, Foley; E. Ronald Gray, Fyffe; Myron H. Hawkins and Donald R. Wesson, Gadsden; Gerald T. Cochran, Geraldine;

Hurley W. Knott, Greensboro; L. Gary Craddock, L. Jan Davis, W. Newton Godfree, Jr., Peter F. W. Kuers, Huntsville; Gary N. Little, Leeds; F. Thomas Boudreau, III, John A. DiPlacido, David H. Gaillard, Jr., Travis B. Goodloe, Robert C. Patton, Daniel T. McCall, III, David G. Walsh, Earnest C. Wood, Mobile; Joe C. Allen, William T. Branch, Bryant H. Hudson, III, L. Thomas Jehle, Jr., and Hamlet T. Newsom, Montgomery; Frank L. McPhillips, Point Clear; W. Pearson Clack, Roanoke;

Donald F. Slappey and E. Lee Taylor, Jr., Sheffield; James C. Matthews, Jr., Silas; Charles T. Burton, Town Creek; Thomas R. Guyer, Roy T. Hager and John R. Scott, Tuscaloosa; John R. Denton, Jr., and James Orlis Powell, Tuscumbia; Robert H. Story, Tuskegee; T. Gerald New and Barry L. Wilson, Wedowee; J. Maxwell Austin, Jr., and Charles J. Masters, Wetumpka; Paul J. McKee, Pensacola, Fla.

Dr. Wells Named to Faculty

The Medical Center of the University of Alabama announces the appointment of Dr. Benjamin B. Wells, formerly Assistant Chief Medical Director for Research and Education, Veterans Administration Central Office, Washington, to the position of Assistant to the Vice President for Regional Medical Programs, and Director of the Alabama Regional Medical Program. Dr. Wells will also hold a faculty appointment of professor of medicine, Medical College of Alabama.

The Regional Medical Program is a part of the nation's effort to develop cooperative arrangements with all health personnel and agencies in order to provide the best in diagnosis and treatment for patients with heart disease, cancer, and stroke. The UAB Medical Center works with the Regional Advisory Committee composed of representatives of health professional groups, voluntary health agencies, hospitals, and other health related institutions as well as concerned laymen from throughout the state to implement the program.

Dr. Joseph Volker, vice president for Birmingham Affairs and director of the original planning grant which created Alabama's

program, said, "The State is fortunate to have Dr. Wells accept the position as director of the Regional Medical Program. He is well qualified to direct this important effort which will benefit all the citizens of the State and region. We are confident that he will provide the kind of leadership which will make Alabama's Regional Medical Program one of the most effective in the country."

Speaking for the State Advisory Committee, Dr. T. Joseph Reeves, chairman, said, "We are extremely gratified that the activities of the Regional Medical Program will be directed by such capable individuals as Dr. Wells and Dr. J. O. Finney, retiring president of the Medical Association of the State of Alabama, who recently accepted the position of assistant director of the program. We view the Regional Medical Program as an excellent opportunity to develop the best in health care for all our citizens, and the committee anticipates an excellent relationship with the program's directors in order to reach our goals."

Alabama's program is in the planning stages and is now involved in defining the health needs of the region in order to develop plans for meeting these needs. The planning grant for the Alabama region was announced in December, 1966, by Senator Lister Hill.

Dr. S. Richardson Hill, dean of the Medical College of Alabama, and Dr. W. B. Frommeyer, chairman of the Department of Medicine, said, "Dr. Wells' distinguished background and experience as a teacher and administrator will certainly enhance the Department of Medicine, and we welcome him with great pleasure to the faculty of the Medical College."

A native of Texas, Dr. Wells received his B. S. and M. D. degrees from Baylor University and Baylor College of Medicine, and was awarded the Ph. D. in biochemistry from the University of Minnesota in 1941. He served a fellowship at the Mayo Clinic in Rochester, Minnesota. He has held teaching appointments at Baylor College of Medicine; the University of Arkansas School of Medicine, where he was professor and chairman of Medicine; the University of Texas Post-Graduate Medical School; Creighton University School of Medicine, Omaha; and the Tulane University School of Medicine, New Orleans.

Dr. Wells has been dean of the University of Arkansas School of Medicine (1947-48); director of research of the M. D. Anderson Hospital for Cancer Research in Houston (1948-49); and dean of the California College of Medicine, University of California, Los Angeles (1962-63). He has served the Veterans Administration in various capacities, among them, Area Consultant in Pathology, St. Louis Area Office; Chief of Staff, Veterans Administration Hospital, New Orleans; Director of Education Service, Veterans Administration Central Office; and from 1959 to the present, Assistant Chief Medical Director for Research and Education. Dr. Wells is an ex-officio member of the National Advisory Council on Arthritis and Metabolic Diseases; National Advisory Council on Allergy and Infectious Diseases; and the National Advisory Council on Regional Medical Programs, all of the National Institutes of Health.

His academic honors include membership in Beta Beta Beta (international honorary biological fraternity); Alpha Omega Alpha (honorary medical fraternity); and Sigma Xi (honorary graduate science fraternity). Dr. Wells received the Brower Traveling Scholarship, the first award by the American College of Physicians for study of teaching methods in the United States, in 1951. He is a diplomate of the American Board of Pathology and American Board of Internal Medicine. He is a member of many distinguished scientific and professional societies, and has authored several books and sections of books, as well as numerous articles in scientific publications.

"Take a laxative" is a harsh sentence

Although there are more than 60 ethical laxatives available for the constipated patient, many, unfortunately, do not really produce an effect much like a normal bowel movement. Instead they whip the bowel, torment it and leave it irritated, inflamed and exhausted.
On the other hand, Dulcolax provides a nearly normal movement. Through its unique contact action, it induces the kind of natural contraction waves of the colon necessary for gentle, complete, comfortable bowel movements.
For your next constipated patient, try Dulcolax–the laxative with the gentle touch.

Dulcolax, brand of bisacodyl tablets (5 mg.)

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The AMBAR SCRAPBOOK of Obesity Oddities

FACT & LEGEND

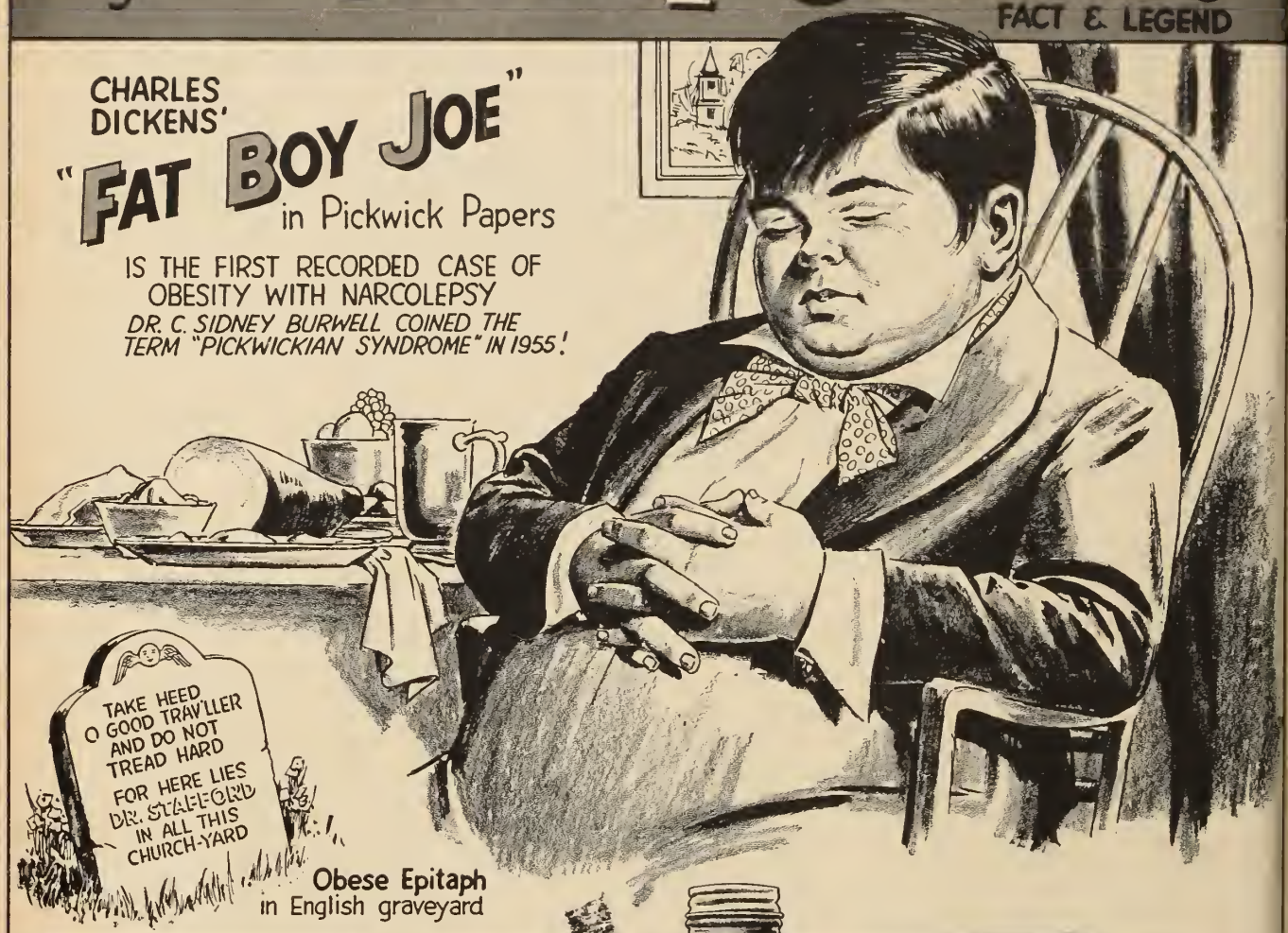
CHARLES DICKENS'

"FAT BOY JOE"

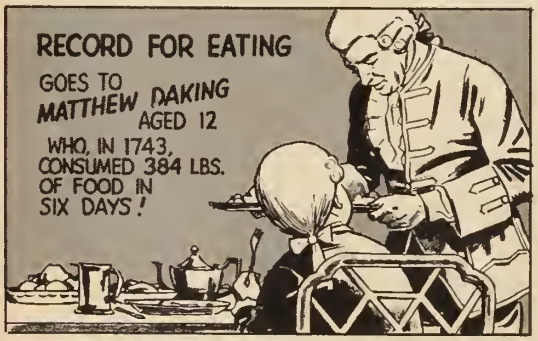
in Pickwick Papers

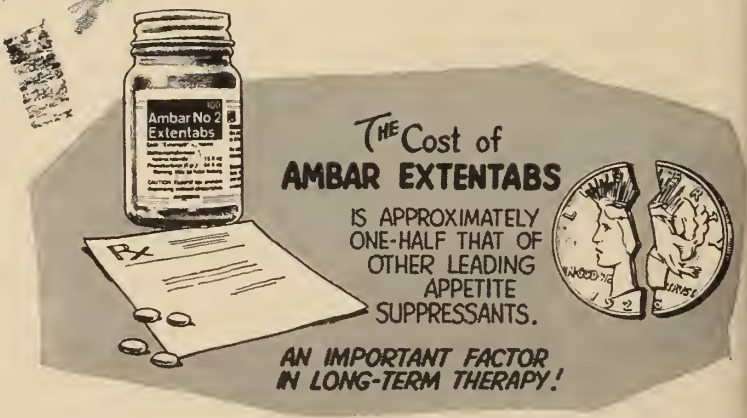
IS THE FIRST RECORDED CASE OF OBESITY WITH NARCOLEPSY

DR. C. SIDNEY BURWELL COINED THE TERM "PICKWICKIAN SYNDROME" IN 1955!



Obese Epitaph in English graveyard





CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

A. H. ROBINS COMPANY, RICHMOND, VA. 23220

A-H-ROBINS

Audio-Digest Issues New Catalog

A library of more than 300 one-hour tape recordings, devoted to comprehensive panel discussions and symposia on everyday office problems, has just been released to the medical profession by the Audio-Digest Foundation, Los Angeles

According to the Foundation's Medical Board, the 1967 "Catalog of Classics" makes available to individual physicians, hospitals, and clinics, ideal Journal Club and teaching material in seven specialty areas: Anesthesiology, Obstetrics-Gynecology, Surgery, Pediatrics, Internal Medicine, Ophthalmology, and General Practice. A number of tapes also focus on the Basic Sciences, Cancer, Psychiatry, Gastroenterology, Cardiology, Arthritis, Geriatrics, and Hematology.

The recordings represent distillates of on-the-spot recordings from several hundred major meetings of such groups as the American Medical Association, American College of Physicians, American Society of Anesthesiologists, American College of Obstetricians and Gynecologists, as well as condensations of major university postgraduate courses.

According to the Medical Board, the selected recordings represent the latest and most authoritative reviews of modern-day diagnosis and treatment, in the actual voices of America's finest teachers and clinicians. This special library of titles represented the best of programs produced in the regular subscription programs of the Audio-Digest Foundation (a nonprofit subsidiary of the California Medical Association) during the past several years.

Dr. Julius Michaelson, Foley, serves on the Editorial and Advisory Board of the Audio-Digest Foundation.

The Catalog of Classics is available free of charge and may be obtained by writing the Audio-Digest Foundation at 619 S. Westlake Avenue, Los Angeles 90057.

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Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

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Wounds, abscess, cellulitis



...and the complications of staph.

From time of birth, the child is exposed to a whole range of potential staph infections: wounds; secondarily infected dermatoses; primary lesions, such as deep impetigo (ecthyma), boils and felons; and more serious conditions such as osteomyelitis, staph pneumonia and staph meningitis.

Bactericidal

Hardly a staph organism can resist the bactericidal action of Prostaphlin® (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically Proven

There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo*, therapy with oxacillin can be extended when necessary.

Outstanding Safety Record

Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Suspension and Injectable

Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—an oral solution for pediatric use, capsules, and multi-dose vials for injection.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY 8:12.16**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

BRISTOL

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Poverty Fight Costs OEO Plenty
"It's Definitely Not A Federal Babysitter"

Poverty is big business in Montgomery. Almost unnoticed, the Office of Economic Opportunity's activities in the city and county have grown sharply since last fall. The OEO recently approved sizable grants to five counties in the state. By far the largest cut of the money was earmarked for Montgomery.

One grant was for $957,590 to run the Head Start program until February. Another was for $113,149 to operate neighborhood centers in the city. The money to be spent in Montgomery from last November till next February is about $1,700,000. For a comparison, the general operating budget of the Montgomery County Board of Revenue is about $1,800,000.

Charles R. Sheldon is in charge of the anti-poverty activities, which are headquartered at 429 S. Decatur in offices formerly occupied by the Girl Scouts. He is executive director of the Community Action Committee (CAC), which is the operating organization for the OEO programs.

As Sheldon explained it, the CAC is made up of 48 Montgomerians—16 representing business, 16 from the "public and private sector" (elected officials, professional men) and 16 "from the poor or representatives of the poor." Subject to approval by the OEO regional office in Atlanta, they make the decisions on how the money is to be spent and what new programs will be developed.

In Montgomery, the biggest program by far is Head Start, for children from 3 to 6 years old. About 940 are enrolled in 28 centers, where they are fed breakfast and lunch and given supervised recreation, games, field trips and other activities. This program cost $400,000 from last November to April 15. Another $957,590 has been granted to finance Head Start until next February.

Reprinted with permission of THE MONTGOMERY INDEPENDENT, Montgomery, Alabama.

All but a handful of the Head Start enrollees are Negro children from what Sheldon calls the "low socio-economic level." In fact, the entire anti-poverty program here involves mostly Negroes—perhaps 80 to 90 per cent of those taking part.

"We don't plan it that way," said Sheldon. "We make the programs available to everybody but we can't make anybody take part in them." Of the 28 Head Start centers, all are in or near Negro neighborhoods.

In the Head Start classrooms, the ratio of pupils to instructors is about 7 to 1. Each class has a teacher, an assistant teacher and a volunteer worker. The teachers are paid from $400 to $450 a month. The teachers work five hours a day. In addition, Sheldon said they are required to make periodic visits to the children's homes.

Head Start centers are in churches, community centers and other places. One of the largest centers is located in the basement at St. Jude's, where 125 children are enrolled. There are small rural centers at such places as Cole Chapel, Mt. Meigs, Resurrection, Macedonia and Antioch.

The CAC owns 13 buses which are used to transport many of the children. The CAC motor pool also includes three station wagons, a 1½-ton truck and three pickup trucks—all purchased as U. S. government surplus.

Dental hygienists regularly visit the classrooms to instruct the children in how to brush their teeth. After every meal, Sheldon said the children line up with toothbrushes in their hands while the teacher goes down the line squirting toothpaste.

"A lot of these children had never seen a toothbrush," said Sheldon.

About 850 children have visited the offices of 14 dentists who are participating in the poverty program under a contractual arrangement.

"Head Start," said Sheldon, "is definitely not a kindergarten, not a federal baby-sitting service." The purpose, he said, is to offer medical, dental and social services, encourage parent participation and prepare the children for school.

Said Sheldon: "We don't teach the A-B-C's or how to count, but we do teach group dynamics." What's that? "That's teaching them how to react to other people."

* * *

The next biggest program is the Neighborhood Youth Corps, a vocational training program for high school dropouts. About $200,000 is being spent to train 200 dropouts in six-month classes of 100 each.

Sheldon said the dropout must have been out of school for six months, be from a poverty group and be from 16 to 22 in age.

They are paid $1.25 an hour for 30 hours' work a week. They are required to have an additional one hour of counseling and six hours of education of the kind they would get in public schools.

Those in the Montgomery program are working at St. Jude's and the VA hospitals —training to become nurses aids, laboratory technicians and perform other hospital work. Sheldon said this program is four months old and eight or nine of the dropouts have been hired by the hospitals.

* * *

Starting June 1 is another poverty program, known as the "neighborhood center idea." A grant of $113,000 will finance this until February.

Sheldon said four such centers will be opened in neighborhoods where there are high rates of juvenile delinquency, venereal disease, and non-immunization against diseases.

Each center will be staffed by a director-probation officer, a case worker and a clerk. In addition, a psychologist, a job counselor and a nurse will be employed to call on all the centers by rotation.

In the centers, shots will be given and hearing checked. The psychologist and probation officer will work with delinquents. At night, Sheldon said classes will be given for adults—for example, a class in how to buy groceries and how to budget spending.

"We need the psychologist," said Sheldon. "A lot of these kids have maladjustments. I've talked to some of them. They're pretty wild."

* * *

Yet another program is the Literacy Vocational Incentive Program, for which $29,000 has been granted. About 100 adults, most of them chronically unemployed, attend classes three nights a week at St. Jude's. These, said Sheldon, are not paid.

They study homemaking, bricklaying & masonry, landscaping, mill work & carpentry. An attempt is also made to teach them how to read and write.

"We try to motivate them to get and hold jobs," Sheldon said.

* * *

Who monitors all this spending and is the authority for what is happening.

Sheldon said a monthly audit is prepared for the members of the CAC and the program is "auditable" every year.

The CAC, he said makes policy decisions, and every project must be approved by the city, county and state governments.

Political representatives on the board are Mayor Earl James, Board of Revenue Member Mac Hall and State Senator Joe Goodwyn. Family Court Judge William F. Thetford is a member.

A smaller executive committee consists of Dr. J. E. Caple, Miss Ada Kate Posey, W. E. Thompson, Mrs. Henry Altheimer, Charles M. Jager, Dr. Joe G. Stewart, W. F. Alford, K. K. Mitchell and the Rev. Olin L. Rowe.

This committee meets monthly, Sheldon said, and is responsible for the poverty program in this county.



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for the menopausal syndrome and female hypogonadism. Novestrol, a pure synthetic estrogen derivative, is related to estradiol which is the primary hormone of the ovarian follicle. It is effective orally and has all the actions of naturally occurring estrogen.

Ethinyl estradiol is the most active estrogen known. In addition to its high potency, Novestrol offers patients the advantages of minimal side effects, low cost, and convenience. Usually only a single daily dose is necessary.

Description: Each green, sugar-coated tablet contains 0.02 mg. of ethinyl estradiol U.S.P., a pure synthetic estrogen derivative, the most active estrogen known.
Indications: Menopausal syndrome and female hypogonadism.
Contraindications: Patients with tumors which estrogen might stimulate.
Precautions: Examine patients for mammary or reproductive system neoplasm. Give with great care, if at all, to patients who have precancerous lesions or family history of cancer.

Prolonged administration or high doses may produce anterior pituitary suppression. Endometrial bleeding can usually be avoided by cyclic administration at lowest effective dose and addition of progesterone during last half of cycle. Endometrial hyperplasia may develop in spite of cyclic therapy.
Side Effects: Occasional gastrointestinal disturbances, headache and vertigo. These usually disappear following proper dosage reduction.
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.

WILLIAM H. RORER, INC. Fort Washington, Pa.

Health Spending Increases; Physicians' Share Unchanged

Americans are increasing their spending for health care, reports The AMA News, published by the American Medical Association.

But they still spent more for liquor and tobacco ($21.4 billion) in 1965 than for hospital, drug, and doctor bills combined ($19.8 billion).

Spending for health care totaled $28 billion in 1965, according to figures of the U. S. Department of Commerce. That's an increase of 9.5 per cent from the $25.2 billion spent in 1964.

Hospitals receive the largest share of health-care spending—about 30 cents of every dollar. The total spent for hospital care in 1965 was $8.4 billion.

Other portions of the health-care dollar were divided among drugs, 16.4 cents; dentists, 9.6 cents; health insurance, 7 cents; appliances, 4.4 cents, and miscellaneous expenses, 4.9 cents.

The remaining 27.7 cents goes to physicians. This percentage was unchanged from 1964, but has declined slightly over the years. Twenty years ago, physicians received about 28 cents of every health-care dollar.

The Department of Commerce reported these expenditures for health care in 1965:

Hospitals, $8.4 billion; physicians, $6.8 billion; drugs, $4.6 billion; dentists, $2.7 billion; health insurance, $2 billion; appliances, $1.1 billion, and other services $1.4 billion.

Health-care represented about 6.5 per cent of personal spending in 1965. Americans also spent about 19.7 per cent of their income on food; 9 per cent on clothing, accessories and jewelry; 19.1 per cent on care and maintenance of homes; 2.8 per cent on maintenance of other possessions, and 2.5 per cent for transportation and communications.

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oxyphenbutazone

Therapeutic Effects: Tandearil is a nonhormonal compound which may rapidly resolve inflammation and help restore normal joint function. Its action does not affect pituitary-adrenal function or impair immune responses. Its value in osteoarthritis is especially noteworthy because this disorder responds inconsistently to steroids and is often resistant to salicylates. Further, indomethacin is limited only to osteoarthritis of the hip, whereas oxyphenbutazone is effective in all forms of the disease.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: The initial daily dosage in adults is 300-600 mg. in divided daily doses. When improvement occurs, dosage should be decreased to the minimum effective level; this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information. 6562-VI(B)R

Availability: Tablets of 100 mg.

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Geigy

Tandearil®
oxyphenbutazone

helps osteoarthritic joints move again



3 out of 4 osteoarthritics completely or markedly improved

Sperling, I.L.: 3 Years' Experience with Oxyphenbutazone in the Treatment of Rheumatic Disorders, Applied Therapeutics 6:117, 1964.	76.9% of 407 patients
Watts, T.W., Jr.: Treatment of Rheumatoid Disorders with Oxyphenbutazone. Clin. Med. 73:65, 1966.	84.6% of 39 patients

Please see adjoining page for brief prescribing summary

TA-4919 PC

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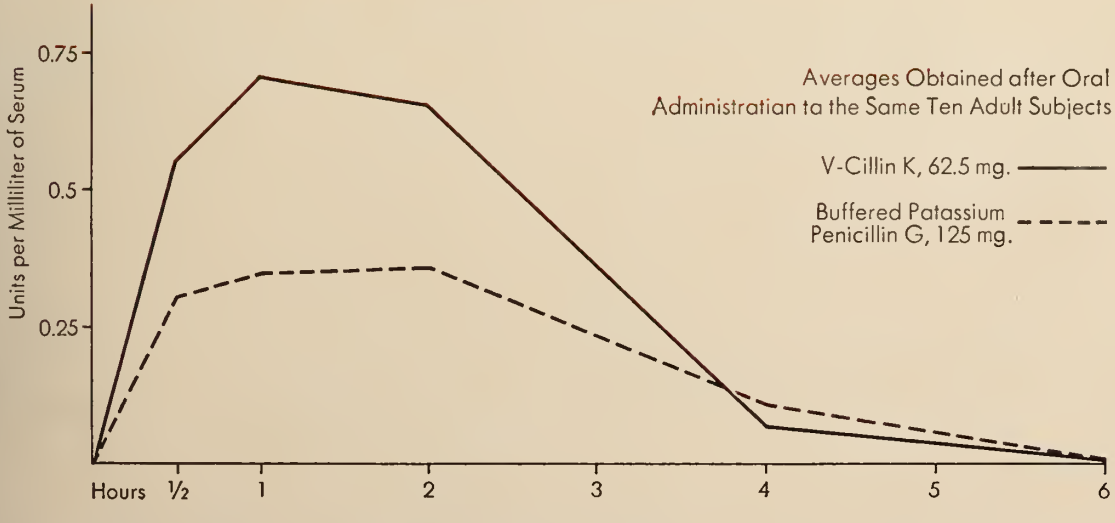
V-Cillin K® provides dependable oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptococcus, Group A MIC (mcg./ml.) Median	Range	Diplococcus Pneumoniae MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adopted from Klein, J. O., and Finland, M.: New England J. Med.,269:1019, 1963.

with high blood levels, even in the presence of food



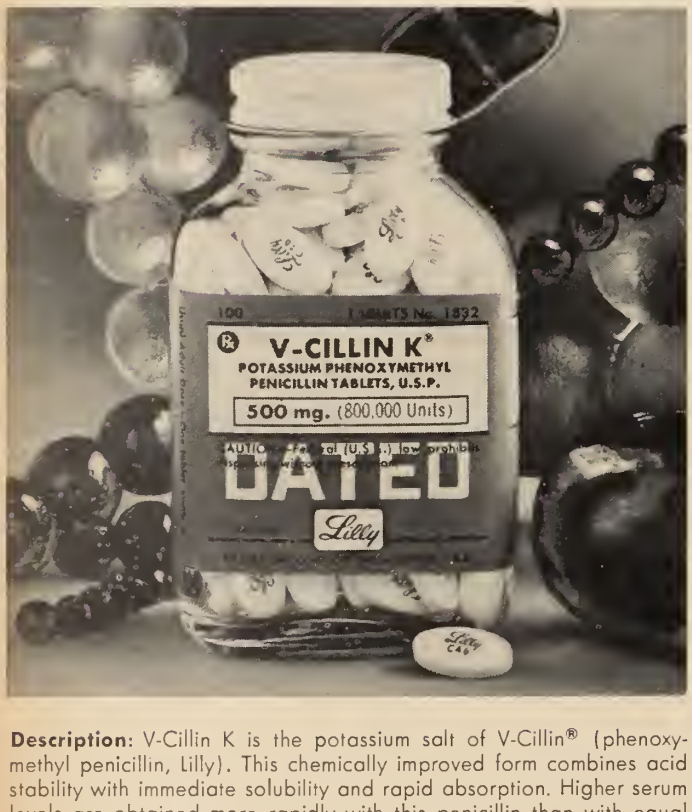
Adopted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K® Lilly 700636

Potassium Phenoxymethyl Penicillin

(See next page for prescribing informa

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin and in those with bronchial asthma or other allergies. Resuscitative drugs should be readily available for emergency administration. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for relief of immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with hi parenteral dosage schedules, frequent evaluation of the renal a hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studi (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth pencillin-insensitive organisms. In such cases, its administration shou be discontinued, and appropriate measures should be taken.

Adverse Reactions: Although serious allergic reactions are much le common with administration of oral penicillin than with intramuscul forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a signi cant index of sensitization. The following hypersensitivity reactio associated with the use of penicillin have been reported: skin rash ranging from maculopapular eruptions to exfoliative dermatitis; ur caria; and reactions resembling serum sickness, including chills, feve edema, arthralgia, and prostration. Severe and often fatal anaphyla has occurred (see Warnings). Hemolytic anemia, leukopenia, thro bocytopenia, and nephropathy are rarely observed side-effects a are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin Pediatric, the usual dosage ranges from 125 mg. (200,000 units) thr times a day to 500 mg. (800,000 units) every four hours. For infan the daily dosage may be 50 mg. per Kg. of body weight divided in three doses.

Beta-hemolytic streptococcus infections without associated bc teremia may be treated with 200,000 to 400,0000 units three times day. Therapy should be continued for a minimum of ten days to preve development of rheumatic fever and/or other serious complicatio Dosage for routine streptococcus prophylaxis in patients with a histc of rheumatic fever or congenital heart disease may be 200,000 ur once or twice daily. When such patients undergo tonsillectomy, to extraction, or other minor surgery, the prophylactic dose should 500,000 units every six hours given two days prior to surgery and two days postoperatively. If oral medication is not feasible on the c of surgery, parenteral therapy should be considered. Mild to mod ately severe pneumococcus pneumonia has been treated effectiv with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be gi every six to eight hours in conjunction with indicated surgical prc dures.

For gonorrhea in males, 500 mg. (800,000 units) every four hours three doses may be employed; in females, 500 mg. every four hc for six doses are recommended. Refractory infections generally resp to a second treatment three to four days following completion of first. Treatment of gonorrhea with severe complications should individualized, with prolonged and intensive treatment. Patients wi suspected lesion of syphilis should have a dark-field examination fore receiving penicillin and monthly serologic tests for a minimur three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units) bottles of 50 and 100; and 250 mg. (400,0000 units) and 500 (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) 5 cc. of solution, in 40, 80, and 150-cc.-size packages. [03:

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

The AMA's Role in Sex Education

Sex, at one time something youngsters learned about only in whispered discussions with usually p o o r l y informed older playmates or in a once-in-a-lifetime, too-little-too-late lecture from their parents at the age of 13, is now being discussed openly by many parents and in many school classrooms and counseling situations.

The clamor of dissent which arose when sex education was introduced into school curriculums about 15 years ago has quieted. Educators who previously posed the question, "Will we teach sex education?" are now asking, "*How* will we teach sex education?"

You, as a physician, may be faced with the responsibility of cooperating with your local school systems in answering this question and in helping organize and carry out sex education programs in your community and schools.

The American Medical Association, keeping this possibility in mind, has available for your use several publications, a list of films and a suggested reading list of helpful books which can make your job easier. Brief descriptions of the publications and sources for the reading and film lists are printed at the end of this article.

In all of its work in the sex education field, the AMA's Department of Health Education cooperates with the National Education Association. It looks to the schools to carry out any programs on sex or family life education. In fact, a joint committee, with an equal number of educators and physician members, the Joint Committee on Health Problems in Education of the NEA and AMA, was formed 56 years ago to consider health problems in education. Sex education is one of these problems.

The philosophy adopted by this committee suggests guidelines for anyone teaching sex education. For example, one portion of a resolution states "that the concept of the family as a unit of society based on mature, responsible love be a continuing and pervasive educational goal."

In accordance with this concept, the sex education programs of today are more often referred to as family life education programs because they deal with many aspects of family living other than reproduction. For example, in the early years this education usually deals with family relationships such as the role of the parents and children and their responsibilities to one another. At the fifth-grade level children start learning about the physical aspects of actual reproduction. This instruction is coordinated with their previous study of the family unit. The education plan continues in the final years of high school from this phase to the more mature family problems, such as budgeting and child rearing, confronting newlyweds and young marrieds.

The Committee's philosophy concerning venereal disease is that it should not be taught as part of sex education, but as part of communicable disease education. This is based on the idea that the fear of VD should not be introduced into a discussion of a normal, happy marriage relationship.

There are many reasons why family living should be taught in the schools. Family life education, including sex education, is the responsibility and privilege of parents, the Committee believes, but needs to be supplemented by school and community. The altered structure of our society has resulted in greater permissiveness and changing moral values.

The years when sexual drives are recognized to be approaching a peak present the need for important and even urgent decisions on the part of youth. The exploitation, by all forms of mass media, of the sensual aspects

of sex has placed undue emphasis on erotic behavior as opposed to mature, responsible love relationships. The disparity between expressed beliefs and observed actions of many adults has not passed unnoticed by the youth of our country. The persistent occurrence of out-of-wedlock pregnancies and venereal disease has been paralleled by a lessening of the restrictive effect on sexual behavior by either of these conditions.

For all of the above reasons, the Committee believes the schools should accept appropriate responsibility for reinforcing the efforts of parents to transmit knowledge about the values inherent in our family systems and about the psychological, moral and physical consequences of sexual behavior.

This responsibility can be carried out by including in the general and health education curriculum the philosophy and biology of human reproduction beginning at the elementary level and continuing throughout the school years at increasing levels of comprehension.

Within the past two or three years, the number of sex education programs in school systems has increased rapidly. In fact, a few state legislatures have made sex education or family living programs mandatory in all schools. The AMA's Department of Health Education cites three basic reasons for the gradual increased interest in sex education. People in general are finding sex an easier subject to discuss. Others are concerned because of the increase in out-of-wedlock pregnancies and venereal disease. Others see it as positive education, a necessary part of any complete education.

The increased interest in sex education is obvious from the amount of correspondence on sex education the Department of Health Education handles. At least 100 letters with queries on sex or sex education are received and answered each week. These letters come from the general public, but also from physicians, schools and churches asking about sex education literature or about curriculums for teaching sex education.

The AMA has no set curriculum for teaching the subject and feels this must be worked out by the community to suit their needs. To assist these schools and churches, the AMA gives them the names of other communities which already have established good active programs.

Lectures are an area in which physicians are asked to participate most frequently. Although the AMA has staff members in both the Department of Health Education and the Department of Environmental Health who do participate in workshops on sex education for educators and physicians, lectures and discussion programs for the education of the public in this area are left to the local communities. Some local medical societies now arrange their own lectures and encourage physician members to work with the schools on this.

The aids from the AMA which will help you in this situation include a graded series of five pamphlets on sex education. One pamphlet is strictly for prospective parents and parents of pre-school and early school-age children, another for children in grades four, five and six. There are also pamphlets for children of junior high school age, for young people 16 to 20 years of age and a final pamphlet for adults faced with the responsibility of instructing children and youth in sex education.

More than 500,000 pamphlets in this series were distributed last year. They are available from both the AMA and NEA at 30 cents each or in quantities of 100 of each title for $20.

Another publication published by the AMA which is equally helpful is *The Miracle of Life.* This pamphlet explains the life process from the composition and growth of a single cell to reproduction and the growth of the human body. Another leaflet, *Why Girls Menstruate,* explains menstruation in simple and matter-of-fact terms. Both of

these publications are available from the AMA.

A list of 16 films on sex education is available from the AMA's Medical Motion Pictures and Television Section for use by physicians. Reading lists for parents, children and adolescents are available from the AMA Department of Health Education, as are additional reading lists on marriage and family and on sex education for physicians and educators.

Alabama Diabetes Association

Parliament House—Birmingham, Alabama

September 17, 1967

REGISTRATION, 12:00-1:00 p. m. Parliament House Lobby

INTRODUCTION OF SPEAKER BY DR. BURIS R. BOSHELL

SPEAKER, 1:00-1:45 p. m.: Dr. Joe Shipp, University of Florida, Director of Endocrinology and Metabolism.

TOPIC: "Insulin and Cardiac Metabolism"

INTRODUCTION OF SPEAKER BY DR. LEON SMELO

SPEAKER, 1:45-2:30 p. m.: Dr. Edwin C. Gates, Niagara Falls, New York, President, American Diabetes Association.

TOPIC: "Patient Education"

COFFEE BREAK: 2:30-2:45 p. m.

INTRODUCTION OF SPEAKER BY DR. SAMUEL EICHOLD

SPEAKER, 2:45-3:30 p. m.: Dr. Norbert Frienkel, Professor of Medicine, Northwestern University.

TOPIC: "Control of Liver Glucose Production"

PANEL DISCUSSION, 3:30-4:15 p. m.: Dr. Adrian A. Chandler, Moderator.
TOPIC: "Diabetes 1967"

Hospital Careers Booklet Developed by Blue Cross

Medical societies, individual physicians and auxiliary members concerned with health careers promotional activities will be interested in *The Hospital People,* a new publication developed by the Blue Cross Association.

Designed primarily for those in the 17-27 age range, the 84-page booklet is produced in color and contains more than 30 photographs. Approximately two-thirds of the text is devoted to 20 hospital-based careers, which are treated in narrative, on-the-job sequences.

Other parts of the publication, the second in a current Blue Cross public health series, trace the history of hospitals, their spectacular growth in the American scene and focus upon complex problems confronting hospitals today.

To obtain copies of *The Hospital People* on a complimentary basis for health careers programming or other needs, contact your local or state Blue Cross Plan. All distribution is being handled by the 76 Blue Cross Plans across the nation.



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Volume 37 July, 1967 No. 1

Jerome Cochran Lecture

Robert Q. Marston, M. D.

Bethesda, Maryland

Dr. Finney, Members of the Medical Association of the State of Alabama, distinguished speakers, ladies and gentlemen: There are two types of speeches that stand out as different from all other types—the graduation address and the memorial lecture. The initial warm glow of pride at being asked to speak quickly subsides under the pressure of the responsibility that the speaker bears on such occasions. In preparation for this lecture I had noted with appropriate awe the long list of distinguished speakers scheduled to give the Jerome Cochran Lecture over the past 68 years. Let me impress on you, further, how carefully I noted that over this entire period there were only two occasions when the speaker was listed "not present." I will now share with your program committee the fact that on Monday of this week I was scheduled to appear both before the House Appropriations Committee and the Senate Appropriations Committee, the latter appearance to be before a subcommittee chaired by the distinguished Senior Senator of the State of Alabama.



Dr. Robert Q. Marston

To my relief, my testimony before the House was completed on Tuesday and hearings before Senator Hill have been rescheduled for next week. However, by this time my interests had been aroused to try to find out why Sir William Osler was listed to give this lecture in 1900 and again in 1901 and then was listed as not present. Of course I can only guess, but from March 17-25, 1900, Osler

Dr. Marston is Associate Director, NIH, and Director, Division of Regional Programs. The Jerome Cochran Lecture was delivered at the Annual Meeting of the Medical Association of the State of Alabama, April 21, 1967.

was in bed with influenza followed by what is described as a much needed outing to the dismal swamp of Virginia to recuperate from not only his influenza but also from his struggle during the spring of 1900 with the decision of whether or not to leave Hopkins to go to Edinborough. To the great relief of his friends in this country, he decided to stay in Baltimore.

During the spring of 1901, he was again described as being "laid low" with one of his periodic attacks of bronchitis. In addition, his brother died in Canada with "a coronary artery disease." Incidentally, 1901 was the year that Osler published an article entitled "The Natural Method of Teaching the Subject of Medicine" in the Journal of the American Medical Association.

Osler was scheduled to have been the second speaker to honor Dr. Jerome Cochran. Dr. Cochran was elected in 1879 to be the first Alabama State Health Officer, let me add at a salary fixed at $1,500. Dr. Douglas Cannon's history of the Alabama Medical Association pays repeated tribute to Dr. Cochran's contributions to the State of Alabama and to medicine. Nowhere are these contributions summarized better than the statement of the State Board of Censors at the time of his death in 1896:

"During the last year a great calamity befell us in the death of our leader, Jerome Cochran. The man who conceived this organization and above all others, built it up and made it what it is. Let us hope that his work was so well done that although he is no longer here to guide us with his wisdom and to animate us with his courage we may be able to push on and reap that splendid fruition for which he so earnestly worked and eagerly longed."

I am pleased to join you in paying tribute to a physician of this stature.

The theme of this year's scientific program centers around heart disease, cancer, and stroke, in recognition, as your program says, of the fact that a Regional Medical Program for these diseases is being established in Alabama. You have assembled an impressive group of speakers both from within and outside of your State.

It is my assignment to discuss the progress of the Regional Medical Programs. Public Law 89-239, which established the Regional Medical Programs for heart disease, cancer, stroke, and related diseases, was signed in October, 1965. The responsibility for implementing this law was assigned to a new Division, established at the National Institutes of Health, the research arm of PHS, in February, 1966 and the first staff was recruited, including myself.

One year later in February 1967, the National Advisory Council on Regional Medical Programs had approved applications for planning grants involving more than 80 per cent of the population of the Nation. We currently have under review applications involving almost all of the remaining 20 per cent of the population. Awards to begin operational grants have been made to the Albany, Kansas, Missouri, and the Intermountain regions. Last week one of our consultants, hearing this summary, interrupted to say, "Wait, you can't measure progress by referring only to the success in distributing money. Tell me what the objectives of the law are and what's been done to achieve them."

The principal purpose of this law is to provide the medical profession and medical institutions of the Nation greater opportunity to make available to their patients the latest advances in the diagnosis and treatment of heart disease, cancer, stroke, and related diseases. This overall objective is to be accomplished through the planning and establishment of regional cooperative arrangements among medical institutions which can serve as the framework for linking programs of research, training, continuing education, and demonstration activities in patient care conducted by medical schools, medical organizations, research institutions and hospitals. The regional cooperative arrangements are in-

tended to assure close contact between the development of new medical knowledge and techniques in the environment of research and teaching and the delivery of high quality patient care in the hospital environment. Developing this closer contact is becoming more urgent. Dr. Shannon, Director of the National Institutes of Health, commented recently, our experience with a fully developed capability in the area of biomedical research is of very recent duration. Indeed, he pointed out that it's only been in the last five years that we have begun to see the results of the support of research facilities, training programs, and research programs which began to get increasing support starting about 1955.

The goals and purposes of Regional Medical Programs represent unquestioned basic human needs. More than any other program I know the primary question is not whether it would be good to have such programs but rather how well can they work. An article in the New York Times last week stated it this way. "The Nation is not expected to see the full impact of this campaign for years. It could bring immense benefits to health and the practice of medicine throughout the country or it could fail and be abandoned. Thousands of persons in all of the states and territories are likely to help decide the issue."

A key aspect of the progress under this program is related to the development of an appropriate process for the review of grant applications. This process begins not in Washington but in the local region where prior to submission of an application, even for a planning grant, key decisions must be made about how the major health resources, institutions and organizations will relate. The review at the national level is carried out not by employees of the Federal Government but by nonfederal experts, including practicing physicians, medical school officials, public health officials, experts in the categorical areas involved, representatives of the general public, hospital administrators, and others from all sections of the country. The law requires that prior to the award of any grant it must be recommended for approval by the National Advisory Council. Although intensive review has resulted in less rapid expenditure of funds, it has assured a clearer definition of objectives and mechanisms and it has created confidence in the Regional Medical Programs.

Despite this evidence of substantial progress, there are serious questions concerning this program. First, nothing like this has ever been attempted in this Nation or elsewhere before. There are particular problems in the great urban areas, not because of opposition but because of the complexities that already exist in our large metropolitan areas before the implementation of a Regional Medical Program begins.

Legislation which created the Regional Medical Programs is being implemented during a period of some uncertainty in the health field. There are problems of limited health manpower to meet the increasing needs and demands for health services. Indeed, one of the main objectives of this program is to allow better utilization of all health resources, particularly manpower. There are problems of adaptation to changes which are outgrowths of both the needs leading to the establishment of Regional Medical Programs and the current enactment of other broad legislation in the health field, such a medicare. There is at the same time the increasing need to relate national objectives more closely to the specific problems of local areas and regions. It is against this background, plus the very magnitude of the aspirations of this program, that this progress should be viewed.

A year ago there was suspicion that some national master plan for heart, cancer, and stroke was about to be imposed upon the Nation. This is obviously not so. Groups that were not accustomed to working closely together were concerned with the prospect of such new relations. However, the type of cooperative arrangements which are being developed to link science and service are evoking a considerable degree of enthusiasm,

excitement, and action. We hear evidence of this in what people are telling us, we see it in the development of new groups with potentially great influence for good, the Regional Advisory Groups which are broadly representative of the health, medical, and civic organizations of the regions. A typical regional advisory group includes the following types of persons:

21% are practicing physicians

18% are associated with medical schools and affiliated hospitals

13% are from cancer societies, heart associations, and other voluntary health agencies

12% are administrators of hospitals

8% are nurses and other health workers

8% are from public health departments

14% represent the public at large

Remember that the regional advisory group must, by law, approve applications for operational grants.

The flexibility in the requirements of the law provides great scope for local initiative and responsibility. On the other hand, Mr. Schmeck in the article quoted earlier points out and I quote, "That this lack of central direction has produced problems, too, and doubts among some observers. Everything has been so flexible that some health educators have found it confusing to the point of being incomprehensible. Some are afraid that nothing at all controversial could be done and the whole enterprise might flounder. Since the Regional Medical Programs are only about to begin, there is no way of testing these beliefs. Health specialists and indirectly the whole Nation will be watching during the next few years to gauge the outcome." Because of the nature of this program, they will be watching you in the regions even more than they will be watching the activities of the Division in Washington. One point was clarified by Congress and during the initial implementation of this program—the results will be measured eventually in terms of the regions' accomplishments in encouraging and assisting better care for patients with heart disease, cancer, stroke, and related diseases wherever they may be.

Let me turn now to talk about operational programs. Our review committees and council worked for more than six months in the evaluation of the applications for the operational programs recently funded. They focused first on those elements of the application which represented the applicant's concept of his Regional Medical Program. In this way the applicant was asked to supply evidence of an overall concept for choosing priorities, demonstrate that there was an effective administrative and coordinating system in which the major health resources of the regions were involved, show that the leadership would be adequate for guidance and coordination, and describe a provision for continuous evaluation of the program for the purpose of improved planning in the future.

The next focus was on the effectiveness of the proposed cooperative arrangements. The applicants were asked to give evidence of serious commitments of the major health resources, to give assurances that the regional advisory group would have a continuing responsible role, and that the proposed activities would strengthen future co-operation. The law is emphatic that it is not the purpose of a regional medical program to serve the interest of one institution or type of institution.

Finally after the committee and council were convinced of a favorable response on these first two areas, the specific operational projects were reviewed, each was judged for its own intrinsic merit and for its contribution to the cooperative arrangements and for the degree to which it includes the core concept of the Regional Medical Program. Following this review the National Advisory

Council made a judgment and recommended the amount of money to be granted. Subsequently the staff of the Division discussed the conclusion of this whole review process with the applicant and with others in the region. In addition to our own consultants, this review process also benefited from the review of these applications or parts of them by an estimated 100 individuals from other parts of the Public Health Service. Thus, the results of the national review process and the regional review process were brought together so that wise use of Federal funds can be assured on the one hand and the regional initiative and prerogatives for decision making are protected and strengthened on the other.

Let me give you a brief example of some of the things involved in these early operational grants.

Missouri was one of the groups to receive an early planning grant of almost $400,000 on July 1, 1966. An operational grant of approximately $2.5 million has recently been awarded. The main achievement of the Missouri Regional Medical Program to date has been the involvement and commitment of organized medicine and osteopathy, hospitals, official state health agencies, voluntary health agencies, and the University of Missouri, including not only the School of Medicine but the College of Engineering, the Department of Economics, the Department of Sociology, the School of Education, the School of Journalism, and the University Extension Service in the Regional Medical Program. The experience of the University as a land grant college is serving as a fruitful model in some aspects of the implementation of the Regional Medical Programs. The initial steps in implementing the operational program are designed towards the general objective of early detection of these diseases. Let me quote from their application:

"All endeavors will be oriented towards maximizing the amount of diagnosis and care which can be delivered in the patient's home and community by the physician and the local medical resources, while maintaining and improving the quality of medical effort . . ."

More than 20 interrelated projects will be carried out involving continuing education, early disease detection, model building, population studies, and the augmentation of high quality service capabilities. For instance, they propose to use funds to establish a series of activities in Smithville, Missouri, which is a rural community of 3,500 people. There are 15 specific activities which are included in the Smithville project. For example, this will be one of the areas in the State which might benefit from multiphasic testing programs. The possibility of utilization of automated electrocardiography has been planned for Smithville and other areas of the State which do not now have competence in electrocardiographic interpretation. It's important to emphasize that all of these plans were worked out with the people in Smithville as a result of their needs and desires. The Smithville community project, including not only the 3,500 people there but an adjacent population of approximately 50,000 people, captures in many ways the essential aims of the heart, cancer, and stroke program in Missouri.

The Kansas application for a planning grant was the second one to be received by the Division. An award of almost $200,000 was made, effective July 1, 1966, and this morning I signed an award for an operational grant for over $1 million. The primary emphasis of the Kansas proposal is the *upgrading of skills of health personnel* by building on its already strong educational and training programs. These resources will be shared with the Missouri region and later with other regions. They will develop an educational center in a remote community serving rural populations 250 miles west of Kansas City. The hospital at Great Bend will become a model affiliated medical center which will have augmented capabilities to serve the needs of the Great Bend area.

Activities in additional subcenters are being developed. In the Kansas City metropolitan other examples include the development of the cancer detection program at a general hospital. Another important project is the development of a work evaluation unit so that eventually the cardiac patients in the region can have the best possible counseling concerning maximal utilization of their limited capabilities.

The Kansas and Missouri applications were developed with particular attention to co-operation between these two regions, particularly as far as Kansas City is concerned. The two applications have numerous examples of the ways in which these two regions plan to work together. The Missouri region through frequent and active discussions with the Kansas region plans to capitalize on the strong continuing education base in Kansas. At the same time Kansas plans to utilize the strengths that are developing in Missouri in applying computer technology to health problems. Meanwhile, planning activities are continuing in both regions to provide the basis for the fuller development of the operational programs.

We have become increasingly convinced that the main pressure on regions to plan wisely will come from the need to conserve scarce medical manpower and that it is important that this be recognized early in the planning process. Dr. Rashi Fein, from the Brookings Institution, in a paper entitled "Medical Manpower—A Continuing Crisis" points out that if the productivity of physicians can be increased by three per cent, this will be the equivalent of increasing the effective supply physicians equal to one year's graduating class from all of the medical schools in the Nation. Regions will also want to give careful consideration to the initial activities chosen to be carried out before subjecting themselves to the type of review I have outlined for operational grants. This cannot be done by choosing one or two or three obvious areas of special interests of an individual or an institution. On the other hand we will be reminding applicants that activities which do not involve large sums of money or commitment to long-term support and which are designed to help determine future decisions are supportable under planning grants as feasibility studies.

Much is expected of Regional Medical Programs by many, many people throughout the country. For the stakes are high and the opportunities are unique. While I cannot appropriately differentiate between my good wishes for all the regions of the Nation, I can point out some special reasons for wishing you every success. First is my five years in Mississippi as your neighbor. Then I am aware of the interest that this Association has had in these programs going back even before the law was passed. This interest is further demonstrated by the nature of your scientific sessions this year. I could also add the tradition of your State Health Department, whose founder we honor in this lecture, and the commitment which our advisory groups saw in your application and which our staff has noted in its contacts with you.

While I am still on this personal note and because this is a memorial lecture and because medicine is a very personal profession, and each of us is marked by the great men with whom we have worked or studied, let me quote from a small book about penicillin called *Miracle Drug*. "That the main secret was eventually wrested from this humble mold by the team of Oxford scientists of whom Sir Howard Florey was the inspiration and leader was something of the nature of a miracle. But it was not brought about by pressing a button or waving a magic wand. It was achieved by the application of scientific knowledge and the unremitting toil of many brilliant scientists and above all by the refusal to be beaten by difficulties which seemed to be insurmountable. Because they refused to accept defeat all mankind in ages to come will be blessed with the life-saving gift of penicillin."

I worked with Florey while the penicillin team was still intact (including my super-

visor, Norman Heatly, who was the first person to see, in the middle of the night, all control mice die while those treated with penicillin survived). I'm sure this experience early in my career helped convince me that the thing that will change the practice of medicine more than anything else will be the results of biomedical research. These changes will be far greater in the future than they have been in the past, and rarely will they be applied relatively simply as was the case with penicillin. It is the purpose of the Regional Medical Programs to help all of those involved in the health field to relate even more effectively science and service in meeting the needs of patients with heart disease, cancer, stroke, and related diseases in a time of great opportunity, great demand, and great change in medicine.

Senator Hill Addresses Harvard School of Dental Medicine

Senator Lister Hill, in a speech delivered at the centennial celebration of the Harvard School of Dental Medicine, warned that "we, as a nation, must think about health matters at the same time we think about our commitments to the many other problems, both domestic and foreign, which face and challenge us today."

"For," Hill continued, "no people can long manifest the strength and the purpose necessary for a great nation without the health of mind and body that is both its point of origin and its source of replenishment."

In his address, Senator Hill, who is recognized as the Statesman of Health in the United States Congress, emphasized the emerging partnership that has taken place in health between the Congress and our universities. Hill declared that "when this partnership began to be felt, a keen awareness of health affairs began to permeate our national life. We can discern its impact today in all aspects of health affairs, in research, in education, and in treatment and care."

Hill traced the growth of the National Institutes of Health and its progress in medical research. "Nearly 80 per cent of this research," Hill pointed out, "is being carried out through funds distributed by the National Institutes of Health to our universities and research institutions throughout the land."

Hill also spoke of the recent measures enacted by Congress providing assistance to our universities and other medical complexes in health education and the training of health personnel. "Together," Hill declared, "they give us genuine hope of redressing the shortages of professional and auxiliary personnel where they already exist and of preventing the future occurrence of similar shortages."

In praising the progress made by the joint efforts of our universities and the Federal Government on behalf of the health of our people, Hill declared, "We have made a pact against pain and suffering. We have made a promise, buttressed by the great resources of this great nation, that the sick shall be made well, that the maimed shall be made whole, that the comfortless shall be comforted."

Clinical Carbon Dioxide–Patient Relationship

By: D. S. Tysinger, Jr., M. D.

Dothan, Alabama

I. Carbon Dioxide Production and Movement

Carbon dioxide is produced in the body by metabolism of carbohydrate, fat, and protein. One gram of carbohydrate produces 4.1 calories, 0.6 ml. of water, and 1.6 ml. of carbon dioxide using in the process 1.2 ml. of oxygen. One gram of fat produces 9.3 calories, 1.1 ml. of water, 2.8 ml. of carbon dioxide using in the process 2.9 ml. of oxygen. Protein produces 4.1 calories, 1.4 ml. of water, 1.5 ml. of carbon dioxide using 1.4 ml. of oxygen in the process. The carbon dioxide thus produced is eliminated from the body primarily by the lungs; a little is excreted through the kidneys. As muscle work increases, more carbohydrate, fat, and protein are burned, more oxygen is needed, and more water and carbon dioxide are produced. The oxygen needed must be supplied by the lungs; also the carbon dioxide produced must be eliminated by the lungs.

Carbon dioxide is much more soluble in liquids than oxygen. This causes better exchange of carbon dioxide in liquids than for oxygen. In the lungs CO_2 equilibrates with alveolar air in 0.1 of a second. Oxygen equilibrates in 0.8 of a second. On the other hand oxygen diffuses into all the lungs very rapidly, whereas CO_2 is a very heavy gas and diffuses poorly in air. CO_2 must be forcefully and mechanically washed out of the lungs.



Dr. D. S. Tysinger

Cellular PCO_2 is roughly at 46 mmHg. pressure. Venous blood PCO_2 is roughly 45 mmHg. pressure. In the lungs it equilibrates with the alveolar air to 40 mmHg. carbon dioxide pressure. Arterial blood PCO_2 leaving the left heart to go to the body has a PCO_2 pressure of 40 mmHg. This is a gradient of 6 mmHg. between tissue cell and alveolar air. To look at it in another way, blood leaving the tissue capillaries by veins contains usual-

Dr. Tysinger is Medical Director, Alabama Chronic Respiratory Disease Project. This is Part II of a series.

ly 530 ml. of carbon dioxide per liter or 53 ml. per 100 ml. of blood. In the lungs 50 ml. per liter or 5 ml. per 100 ml. is transferred to the alveoli and is blown off. The arterial blood leaving the lungs contains about 480 ml. per liter of carbon dioxide or 48 ml. per 100 ml.

This carbon dioxide is carried in four forms. Five per cent is physically dissolved CO_2 and carbonic acid (H2CO3). Thirty per cent is carried loosely attached to hemoglobin and protein molecules. Sixty-five per cent is carried as bicarbonate (HCO3—). The molecular CO_2 from the cells enter the red cell rapidly, where carbonic anhydrase at a rate 200 times normal causes it to be converted into bicarbonate. In the alveolar capillary of the lungs this process is reversed just as rapidly and the bicarbonate converted to CO_2 which is blown off from the lungs. This is part of the process known as the chloride shift.

II. Carbon Dioxide Measurement and Relation

Carbon dioxide is measured as carbon dioxide content, carbon dioxide combining power and as a pressure PCO_2 per mmHg. Content is all the CO_2 in the blood, 100 per cent as above. It used to be measured as ml. or mm. of carbon dioxide also known as volumes per cent. It is now measured as milli equivalents per liter or milimoles per liter, which is easier to apply and understand in relation to the electrolyte pattern of the blood stream. Carbon dioxide combining power will be discussed later. The PCO_2 measured in mmHg pressure is a measure of the five per cent physically dissolved and as carbonic acid. Thus normally five per cent to 100 per cent is 1:20 at a pH of 7.4 is the ratio of PCO_2 to CO_2 content. Since the pH, PCO_2, and CO_2 content bear a direct and absolute relationship to each other, a change in any one will change the other two from this 1:20 relationship. At pH 7.4 the CO_2 is 40 mmHg. The CO_2 content is 24 milli-equivalents per liter. (This is the 1:20 relationship). If the pH changes to 7.3 and the PCO_2 stays at 40 mmHg. then the CO_2 content must change and drops to 18 milli equivalents per liter. On the other hand if the pH goes up to 7.5 and the PCO_2 stays at 40 mmHg. CO_2 content now increases to 32 milli-equivalents per liter. This is what happens usually with metabolic alkalosis or acidosis. If we change the PCO_2 and keep the content at 24 milli-equivalents per liter, at a pH of 7.3 PCO_2 will be 50 mmHg. At a pH of 7.5 with CO_2 content of 24 milli equivalents per liter, the PCO_2 would be only 30 mmHg. This is the type change occurring in respiratory acidosis and alkalosis. By changing either PCO_2 or CO_2 content the pH changes. The pH can be only one figure for one combination of PCO_2 and CO_2 content. CO_2 combining power is not a true evaluation of what is going on in the patient but a close estimate. In checking for PCO_2 and CO_2 content, blood must be handled anerobically because of the rapid loss of CO_2 to room air which is quite low in carbon dioxide. In doing a CO_2 combining power on the other hand, blood is not handled anerobically and before running must be equilibrated with a CO_2 pressure of 40 mmHg. by bubbling it through the blood for a period before running the test. If the patient's actual PCO_2 was 50 mmHg., then the equilibration to 40mmHg. is too low and will give a false answer. Whereas, if the patient's PCO_2 was 25 mmHg., then the combining power will be too high. Thus you can see PCO_2 and CO_2 content arterial and venous bear a direct relation to each other as a buffer system. Whereas, the combining power is a more inaccurate test that with the new pH, PO_2, PCO_2 equipment obtainable in all hospitals could better be dropped. An understanding of pH, PCO_2 and CO_2 content is necessary in handling of patients who may develop metabolic or respiratory acidosis or alkalosis.

III. Physiologic Relations of Carbon Dioxide and Oxygen in the Diseased Patient

I pointed out in "Oxygen Patient Relationship," Part I of this series when blood is fully oxygenated, increase in respiration, depth or rate will not increase to any significant degree the amount of oxygen carried. This is not true for carbon dioxide, as rate and/or volume of respiration is increased more and more carbon dioxide will be blown off. As carbon dioxide is blown off both PCO_2 and CO_2 content are decreased, however, content changes slowly and is dependent on renal regulations so that PCO_2 decreases and pH goes up causing the blood to be more alkaline. In 30 seconds of hyperventilation in the normal individual PCO_2 can be rapidly dropped to 10 mmHg. and the pH rapidly rises to 7.55 or above. If hyperventilation is maintained CO_2 content will go down re-adjusting the PCO_2 to CO_2 content relationship with the return of pH toward normal. In the individual with lung disease with loss of elasticity, stiffness of the chest cage wall and diaphragms, obstruction to the flow of air and trapping of air in diseased areas, the elimination of carbon dioxide is hampered. When the elimination of carbon dioxide has been passed in diseased lungs or normal lungs, and is lower than the amount of carbon dioxide being produced, then the PCO_2 will rise. As it does oxygen saturation goes down (See Clinical Oxygen Patient Relationship) and pH goes down (gets more acid). As the alveolar CO_2 level increases above normal and the blood level increases above normal, this state is known as hypercapnea. Since ventilation determines the CO_2 level and the ventilation into and out of the alveolar space is not sufficient to keep the CO_2 at normal levels, this state is also referred to as alveolar hypoventilation. (No matter what the rate or volume of exchange.) One important point not well appreciated is that once the limit of CO_2 excretion by the lungs has been passed and increased amounts of CO_2 are retained in the blood then the carbonic acid, bicarbonate buffer system is no longer a means of controlling pH as a buffer system. CO_2 is now a retained metabolic acid, the same as the sulfates, phosphates, nitrates, etc., of metabolism. At this point the hemoglobin and the proteins become the main pH buffer systems. This state is known as respiratory acidosis and to repeat is due to alveolar hypoventilation with development of hypercapnea. If this situation occurs slowly and chronically as PCO_2 increases, the kidneys compensate by excreting chlorides so that bicarbonate CO_2 relation may keep the pH relatively stable and if in this situation the pH is within normal limits then this is compensated respiratory acidosis. When CO_2 rises more rapidly then the renal mechanisms can compensate for as PCO_2 increases hydrogen ion concentration increases and pH goes down to produce uncompensated respiratory acidosis. As PCO_2 approaches 70 mmHg. or higher the respiratory center loses its ability to respond to CO_2 as a stimulus. Breathing now is controlled by the pressure of oxygen in the blood stream and its effect on the carotid sinus and carotid body. Now breathing is being controlled by oxygen desaturation, if oxygen is given then the patient will lose the stimulus and stop breathing (becomes apneic). The carbon dioxide tension will continue to rise and may reach lethal levels with cell death and death of the patient.

As hypercapnea develops (carbon dioxide goes up) due to any cause the patient begins to get agitated, irritable, then confused, and the blood pressure begins to go up. If carbon dioxide content continues to increase, the patient will continue on into a coma. The blood pressure will now fall and if not corrected death will ultimately ensue.

If an alveolus is over-ventilated there will be no increase in oxygen consumption. However, there will be an increase in CO_2 blow off in proportion to the increase in ventilation. If we have a diseased alveolus filled with fluid, pneumonia, etc., which is not getting air, but still has its blood supply, there will be no exchange of oxygen or CO_2 in this

alveolus and the profusing blood will go into the pulmonary veins and into the heart, then out to the body with the same PCO_2 and PO_2 that it entered the right heart and lungs. The neighboring alveolus, however, becomes over distended with inspiration and compensating for this non-functioning alveolus and will double its ventilation. The neighboring alveolus can only oxygenate the blood to the extent it was doing before it was over-inflated, so that oxygenation is uneffected, however, the carbon dioxide content of the blood profusing this over-inflated alveolus will be much lower since the degree of over-inflations CO_2 is continually blown off. When the blood from this unventilated and over-ventilated alveolus meet in the pulmonary vein and the left side of the heart, the addition of the two oxygen saturations will cause oxygen saturation to be lower than normal. However, the addition of the low CO_2 with the high CO_2 will cause CO_2 levels to be still normal. This variation in blood supply to the lungs is known as v/Q ration which is the ventilation profusion ratio. The blood passing through the non-aerated lung is referred to as interpulmonary AV shunting.

As there is loss of elasticity and destruction of the alveolar walls in emphysema much more muscle work is required to cause the same amount of air to be moved into and out of the lungs. The amount of air remaining in the lungs is much larger than normal at the end of each breath (the functional residual volume). Here the blood is fully oxygenated so that the patient rarely suffers for oxygenation. CO_2, however, is a heavier gas and with increased functional residual volumes, much larger volumes are retained slowly in higher and higher amounts until a point is reached where the ventilation is again blowing off carbon dioxide at the ratio it is being produced in the patient with a new, but, much higher alveolar thus arterial PCO_2. This type of disease process has produced the 'nickname' for emphysema patients of 'pink puffers'.

The patient with bronchitis and obstructive airway disease on the other hand has an extreme work load to breathe, with a high oxygen consumption rate and CO_2 production, and due to the obstruction has trouble eliminating these from the lungs. CO_2 rises much more rapidly pushing oxygen saturation down and also causing a very high functional residual volume and this patient has both hypoxia demonstrated by cyanosis and hypercapnea (alveolar hypoventilation) which has lead the bronchitic to be 'nicknamed' as the 'blue bloater'.

IV. Blood Brain Barrier and Spinal Fluid Carbon Dioxide

The brain depends on glycogenic metabolism. This requires oxygen and a rapid egress of molecular CO_2 from the brain. The blood brain barrier that separates spinal fluid from the blood stream offers no resistance to the passage of molecular CO_2. Therefore, carbon dioxide rapidly equilibrates on either side of the blood brain barrier. However, it does offer considerable obstruction requiring possibly active transport to bicarbonate, hydrogen ion, and lactate. In metabolic acidosis and alkalosis, the spinal fluid mechanism of buffering usually corrects much faster than does the blood stream. This is not true of respiratory alkalosis or acidosis. In this condition, rapid changes of carbon dioxide levels in the blood stream can produce quite rapid changes in the pH of the spinal fluids, frequently in the opposite direction from that of the blood stream. Also, in the floor of the fourth ventricle are receptors for pH, hydrogen ion or CO_2 which do affect breathing. In the brain carbon dioxide does cause marked cerebral vasodilatation. There is question as to any other stimulus affecting cerebral blood flow, other than high oxygen causing vaso constriction. Due to the blockage of hydrogen ion, lactate and bicarbonate passing the blood brain barrier rapid changes in the molecular CO_2 in the blood stream can have an adverse effect on cerebral blood flow, no matter what the initial molecular CO_2 concentra-

tion. Even when the PCO_2 is high such a drop from 70 to 60 mmHg. pressure, cerebral vaso-constrictions occurs. Metabolic encephalopathy is produced by this nature. It takes a much longer time for mental effects to clear than it does for electrolyte composition of both chambers to return to normal. Sometimes by as much as two to three days. Abnormalities in the electroencephalogram that are produced by respiratory acidosis may continue for as long as two to three weeks after the patient has mentally cleared and returned to active work. Too rapid a change in PCO_2 levels can produce trouble in the brain.

V. Basic Approaches to Treatment

Hyperventilation states with a low PCO_2 are best treated by rebreathing such as in a paper bag or through a long tube, or treatment with five per cent CO_2 in air. In respiratory acidosis, the basic principles of treatment are: (1) maintain a good airway (2) increase alveolar ventilation so as to lower the PCO_2 level, CO_2 level should not be lowered too fast so that we do not get into trouble with the brain secondary treatment.

It is important that in the treating of these patients arterial pH, PCO_2 and PO_2 be frequently monitored so that you know where you are with the patient. In future issues chronic and acute respiratory acidosis will be dealt with specifically and in greater detail.

Infant Bleeding And Breast Feeding

At first glance, breast feeding seems to have been dealt a blow by an article in a recent American Medical Association publication.

Almost all bleeding due to vitamin K deficiency in newborn infants occurs in breast-fed babies, a study of more than 3,300 children shows. Infants who receive cows' milk do not develop the condition as often. The report appears in the May issue of the American Journal of Diseases of Children, published by the AMA.

The report says, however, that breast-fed babies given small supplements of vitamin K had even less bleeding than bottle-fed infants.

"Therefore, the healthiest infant, from the standpoint of bleeding, is the breast-fed infant who receives a modest vitamin K supplement," says an editorial in the May 5 Journal of the American Medical Association.

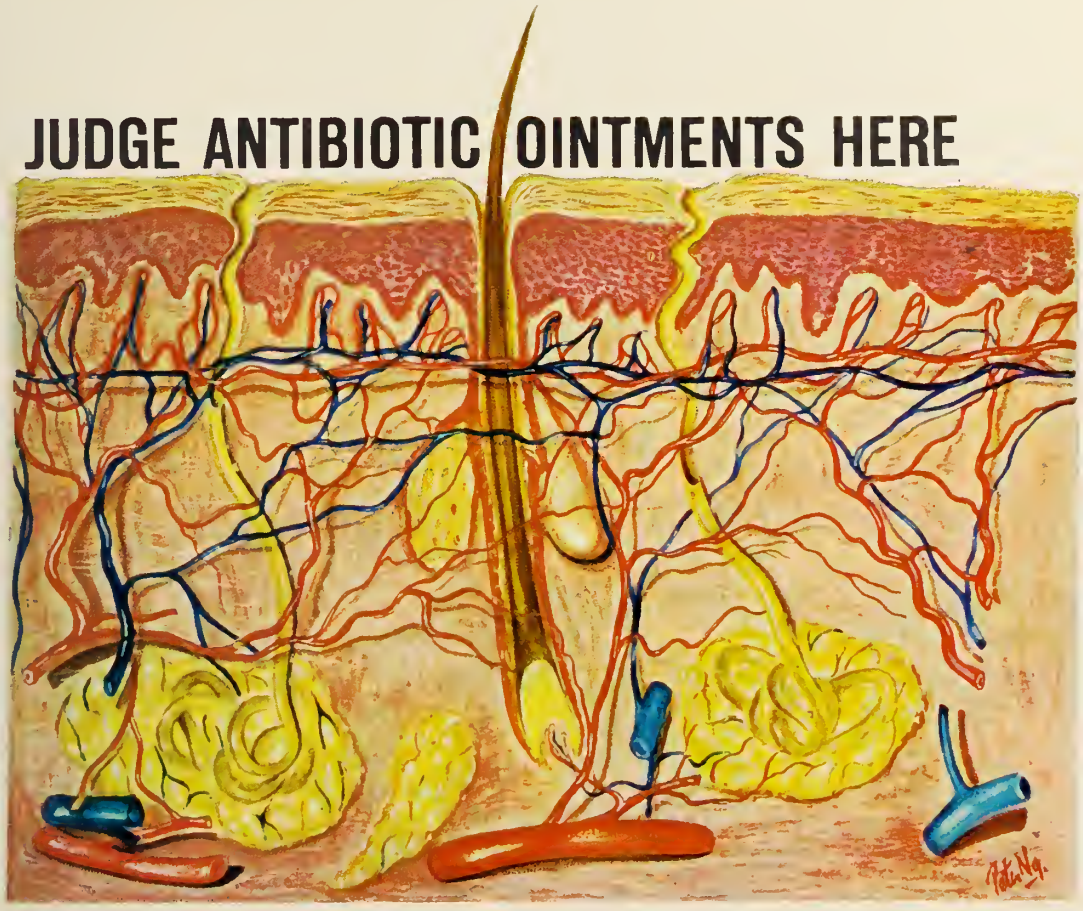
The report, by four investigators at the University of Cincinnati College of Medicine, defined two groups of bleeding infants: (1) breast-fed babies who bleed at sites of blood vessel disruption and suffer from disturbed blood clotting, and (2) bottle-fed babies with normal blood coagulation who bleed spontaneously.

"Breast-fed infants who are also supplemented with vitamin K apparently have increased vascular integrity and are also protected from (clotting failures)," the AMA Journal editorial said.

Breast feeding has declined as social mores have changed, the editorial points out. As a result, there are fewer cases of bleeding due to vitamin K deficiency. Breast-fed infants, however, tend to develop both better vascular systems and fewer clotting difficulties than bottle-fed babies—if the breast-fed babies also receive small supplements of vitamin K.

Authors of the report are James M. Sutherland, M. D., Helen I. Glueck, M. D., and Goldine Gleser, Ph. D., all of the University of Cincinnati General Hospital, and the Children's Hospital Research Foundation, Cincinnati.

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No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B—bacitracin—neomycin) Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and nonirritating.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

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Why these 7 patients with moderate to severe anxiety may respond better to Mellaril



1. The agitated patient.
Anxiety—particularly that beyond the range of minor tranquilizers—frequently is expressed as gross motor restlessness, fidgetiness and purposeless movements, and may erupt into aggressive behavior. Mellaril is almost a specific for those patients whose anxiety follows such a pattern.



The psychosomatic patient.

he family physician is rarely given e diagnostic luxury of a classic, xtbook "anxiety state." Most often must probe for anxiety masked by unctional disorder—or which exac-bates a somatic problem. Double-nd evaluations have demonstrated at Mellaril can be a significant ad-nct in the treatment of such patients.



The patient under uational stress.

llaril helps the patient deal with sses of everyday life. Nonhabitu-ng, it can be given for extended pe-ds of time. It does not "separate" patient from practical problems d pressures, does not induce eupho-or a fuzziness which can compro-ise the ability to cope with reali-ties. Rather, it helps the patient move more competently in his daily world by eliminating use-less tension, by allowing him to conserve emotional resources and energies, and to direct them against the problems really worth worrying about.



4. The menopausal patient.

The woman who sees change of life as the end of useful life requires support from both family and family physician. Whether the psychological impact of menopause is directly related to hormonal changes, or merely coincidental, is debatable, but estrogenic therapy is frequently inadequate. Mellaril is a useful aid for these patients and, alone, or in combination with reduced estrogen dosage, will help ease the menopausal misery.



5. The previously hospitalized psychiatric patient.

Such a patient may still require the type of medication he has been accustomed to, but because he is no longer in a controlled setting the acceptable level of adverse reactions must be lower. In such circumstances Mellaril is perhaps the drug of choice.



6. The agitated geriatric.

Tranquilizer therapy in the elderly patient always involves special (or at least accentuated) problems: the possibility of drug-induced ataxia, hypotension or depression, for example, assumes an additional significance. These reactions have rarely been observed in geriatric patients treated with Mellaril.



7. The constantly returning patient.

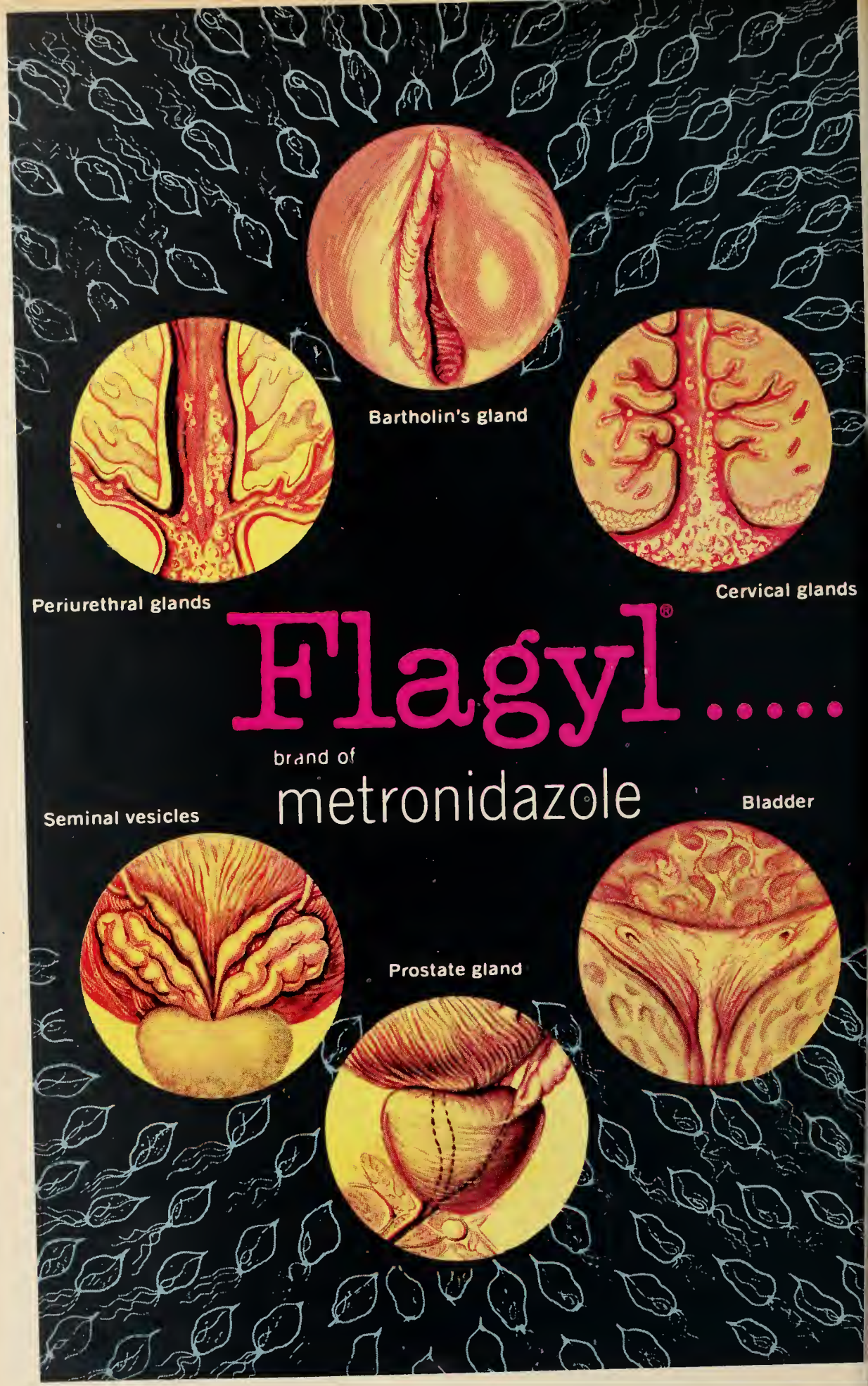
The anxiety patient who has not responded to a minor tranquilizer is not very likely to benefit from your minor tranquilizer of second choice. A major tranquilizer, such as Mellaril, may be indicated in such patients.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.
Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.
Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.
Before prescribing, see package insert for full product information.

in moderate to severe anxiety, 25 mg. t.i.d.

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(thioridazine)

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Flagyl seeks out the sites where trichomonads hide. Only a systemic agent can. Flagyl does, selectively and effectively.

Flagyl destroys trichomonads in the inner crypts, glands and cavities of the genitourinary tract in both women and men. Consequently, Flagyl is capable not only of curing trichomoniasis in women but also of preventing reinfection.

Correctly used, with due attention to repeat courses of treatment for resistant, deep-seated invasion and to the presumption of reinfection from male consorts, Flagyl has repeatedly produced up to 100 per cent cure in large series of patients.

When the diagnosis of trichomoniasis is positive, Flagyl is positive.

Dosage and Administration – In *women:* one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.
In *men* in whom trichomonads have been demonstrated: one 250-mg. oral tablet twice daily for ten days.

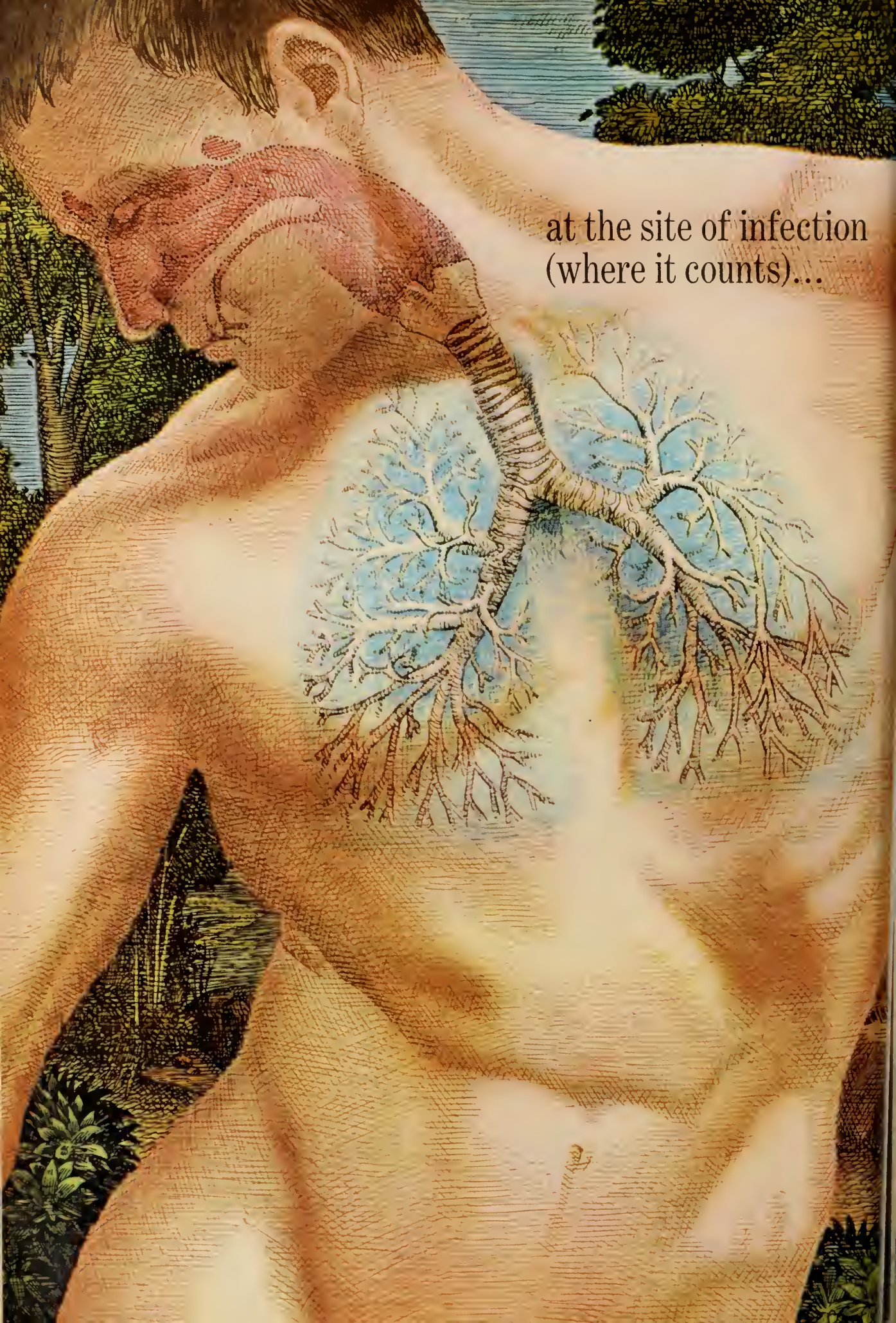
Contraindications – Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution—Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side Effects—Infrequent and minor side effects include nausea, metallic taste, furry tongue and headache. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness of an extremity, joint pains, confusion, irritability, weakness, flushing, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

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Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Now available:
New! Ready-mixed Ilosone Liquid 125! (Contains erythromycin estolate equivalent to 125 mg. erythromycin base per 5-cc. teaspoonful.)

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Ilosone®
Erythromycin Estolate

Lilly

(See next page for prescribing information.)

Ilosone®/ the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have also been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Adverse Reactions: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have developed in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly, usually within forty-eight hours, if the drug is readministered to sensitive patients. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared t be definitely related to use of the drug, laboratory findings wer characterized by increased direct-reacting bilirubin, elevate alkaline phosphatase levels, negative or weakly positive cephali flocculation and thymol turbidity tests, elevated serum glutami oxalacetic transaminase levels, peripheral eosinophilia, and nor mal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has nc been reported in other patients taking prolonged courses of th medication. Patients with chronic infection have been given 1 t to 2 Gm. of the drug daily for periods of two to six months, an patients with rheumatic fever have taken prophylactic doses o 0.5 Gm. daily for two years without difficulty. In one group o 144 patients who received the drug daily for two years, no jaur dice was noted. It was of interest that members of six of thes patients' families, who were not taking the drug, had episode of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels wer determined in a group of fifty-four adults and children who too 250 mg. of Ilosone daily for an average of sixteen months a rheumatic fever prophylaxis. The results were compared wit those of a similar group of forty-four patients who received pen icillin. There were no cases of jaundice in either group. Elevatio of SGPT and serum alkaline phosphatase levels during the cours of treatment was observed in one patient treated with Ilosor and in two patients treated with penicillin. Seven other patient in the group receiving Ilosone and four others in the penicilli group showed elevations in one of the tests at some time durin administration of the drugs.

Very satisfactory therapeutic results, without toxicity, wer reported in 102 pediatric patients who received short-term (ten day) courses of Ilosone in the treatment of streptococcus infec tions. Results of liver function tests in these patients wer comparable to those in a similar control group who had receive penicillin.

Gastro-intestinal disturbances not associated with hepatic ef fects are observed in a small proportion of individuals as a resu of a local stimulating effect of the medication on the alimentar tract; however, the normal intestinal gram-negative bacteria flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the us of erythromycin, there have been occasional reports of urticaria skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®, Ilosone Liquid 125, Ilosone, 125, for Ora Suspension, Ilosone Drops, Ilosone Chewable Tablets.

For infants and for children under twenty-five pounds of bod weight, the usual dosage is 5 mg. per pound every six hours; fo children twenty-five to fifty pounds, 125 mg. every six hours (Tablets Ilosone Chewable should be chewed or crushed an swallowed with water.)

For adults and for children over fifty pounds, the usual dosag of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage i 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythro mycin drugs have not had adequate evaluation in all stages o syphilis. Examinations of spinal fluid are recommended as par of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days ar recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests shoul be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg (equivalent to base), in bottles of 24 and 100.

Ilosone Liquid 125, Oral Suspension, U.S.P., 125 mg. (equivalen to base) per 5-cc. teaspoonful, in 60-cc. and pint-size package

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalen to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size package

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc.-siz packages, with dropper calibrated at 25 and 50 mg.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base) in bottles of 50. [03276

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69, 196
2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 196
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 1960.

Additional information available to physicians upon request.
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DR. HARRIS P. DAWSON

A Long And Happy Love Affair Between The Man And Medicine

In January, 1911, there were no signs on the outskirts of Montgomery proclaiming that the capitol city of Alabama was "on the go."

But things were happening. Up on Goat Hill—so-called for the very simple reason that goats once grazed on the Capitol slopes—there was an uncommon amount of activity. The historic term of Gov. Braxton Bragg Comer had expired, and inaugurated to succeed him was Emmett O'Neal, he being the only governor in Alabama history who was the son of a governor.

It is also worthy of note that about the same time a couple of brothers named Wright were operating a flying school from a cow pasture in North Montgomery near the big bend in the river. The Wright boys had already made a name for themselves at Kitty Hawk, N. C. The cow pasture later became Maxwell Air Force Base.

From the viewpoint of the medical profession, January, 1911, was also a date worthy of recall—it was then that Harris P. Dawson began the practice of medicine in Montgomery.

Today, 83 years young, Dr. Dawson is still in active practice. The story of Dr. Dawson's medical career is actually a story of medicine in Alabama since the turn of the century. It is an intriguing story, and one that deserves to be told.

Dr. Dawson studied medicine at Tulane University, and began his practice in Mobile in 1910. Six months later he entered Harvard for a four months pediatric course, then moved to Montgomery to begin his practice.



Dr. Dawson

At that time there were 12 physicians practicing in the city (there are now 173 listed in the roster), including three surgeons, two eye-ear-nose and throat specialists, the remainder being general practitioners.

Dr. Dawson recalls that he created quite a stir among his professional colleagues when he announced he would specialize in pediatrics, treating children from birth to 15.

"There was quite a commotion among my fellow physicians in the city," he recalled. "Several advised me that the average citizen would not know what a pediatrician was; in fact, several said that they would think I was a foot doctor, and that Montgomery was

(Editor's Note: This is the first in a series of features to be published in *The Journal* on the "elder statesmen" of Alabama medicine. The intent of these articles is to give recognition to these men who through their years of practice have brought great credit not only to themselves but to the medical profession as well.)

entirely too small a town for such a specialist."

Some of the doctors even went so far as to propose that it might be better if Dr. Dawson moved to Atlanta or maybe New Orleans. Dr. Dawson did not take this advice.

The practice of the medical profession was far different in those years than it is today. There was no such thing as medical buildings or medical plazas. In fact many doctors did not even have an office.

When Dr. Dawson opened his office in the Bell Building there was one doctor with an office in the First National Bank building, and several others in the Bell Building.

The office-less doctors had slates or blackboards in the drug stores showing where they could be reached by a patient. At that time all of the drug stores were in downtown Montgomery—the advent of the neighborhood drug store and the shopping centers was still years away.

In the early years of his practice Dr. Dawson, like most MDs, made his calls in a horse and buggy. He rented his rig from a livery stable. In 1913 he purchased his first automobile—a Ford Model T—but as he recalls, there were times when he questioned whether the horseless carriage was much of a blessing.

"I would get a call to go treat a sick child —it always seemed to be at night—and I would go out to the garage and if the weather was cold I would have to prime the carburetor or put some warm water in the radiator and then struggle with the crank to get it started," he said. "Frequently this would take as much time as it would to make the call."

Mention also might be made that there were but two paved roads leading out of Montgomery by 1914, and neither of them went more than five miles.

"To make a country call you would have to be sure that you had a chain, an ax and the address of someone with a mule to pull you out of the mud hole," he said.

And what was a "usual and customary fee" in those days?

"The maximum fee I received for an all-day call was $50 although generally I would get $25," he said. "An office call was $1 and all home calls, day or night, were $3 with an occasional exception when I would have to stay unusually long and that would be $5."

Often times Dr. Dawson would receive his "usual and customary fee" in a form other than cash.

"I frequently treated country patients who were by no means charity but in walks of life where they could not pay cash," he said. "They would show their appreciation by bringing me a ham, a couple of chickens, or several dozen eggs, and frequently many vegetables, fruits and watermelons."

"I felt that this was really more than money, as it was something they had raised or produced and wished to share with me, and that always touched me," he explained.

Dr. Dawson hesitated not a moment in giving great credit to his wife who is known by friends, doctors and patients as "Miss Jennie."

Though burdened with her household chores—and without any of the new-fangled gadgets which now ease such burdens—Dr. Dawson recalls that Jennie was "as much interested in each and every patient as I."

Her life was devoted as much to the care of the sick as was his.

"We did not have any outside diversions at that time except an occasional special event at the theatre or some local organization, or a few friends giving an occasional party," Dr. Dawson said. "I never knew what it was to have a baby sitter, a house on the lake or the Gulf, or be a member of many clubs, particularly country clubs.

Dr. Dawson isn't about to recommend that the profession return to this way of life.

"Today physicians generally take off one day a week, and on weekends they are out of the city, and I think that is commendable; the average physician needs relaxation and diversion," he said.

But he added one word of counsel, however:

"I still feel that anyone who conscientiously practices medicine should put his patients above everything."

In the early years of his practice Dr. Dawson concluded that prevention of disease was worth more than anything else he could offer.

"I was particularly interested in fostering breast feeding of babies as we had a very poor milk supply, many flies and mosquitoes and very unsanitary conditions," Dr. Dawson said. "I was able to get at least 80 per cent of the mothers to nurse their newborn babies for at least four to eight months."

Dr. Dawson recalled one instance in his early career which suggested he had done an "over-selling" job to a mother about breast-feeding. The mother brought her three-year-old child to Dr. Dawson's office, and as he recalls it:

"While examining the child he began to cry at the top of his voice and without warning she immediately opened her dress, dropped out one of her breasts, and he nursed for a few minutes and quit crying. I was horrified and demanded to know why this three-year had not been weaned. The mother replied that she had been advised that as long as she nursed a baby she would not become pregnant."

Dr. Dawson recalls that in the first five years of his practice he spent most of his time treating diarrhea, gastro-intestinal disturbances, typhoid, diphtheria, pneumonia, malaria, and ear-nose and throat troubles. There was no preventative medicines, and it was then that he began to appreciate how important it was to have immunizations given to every child as soon as such vaccines became available.

Diphtheria was a major problem in those years, and Dr. Dawson said it was not uncommon to be called out in the middle of the night to "treat a child who had the croup, could not breathe and was choking."

"You would immediately go and even when entering the room there was a peculiar odor which anyone who had been practicing pediatrics for several years would recognize as diphtheria," Dr. Dawson said. "This diagnosis would be made even before using the tongue depressor to examine the throat and find the entire tonsils covered with a yellowish membrane and seeing the child struggle for breath."

It was about this time that the first "miracle" drug was developed—the diphtheria anti-toxin.

"If you could give a large enough dose early you could see within 24 to 48 hours a miraculous improvement," he said. "Many children died in these early years from lack of diagnosis and I have seen a few saved in their last stages by tracheotomy."

Dr. Dawson recalls with much satisfaction the role he played as head of a charity pediatric clinic established by the City of Montgomery during the depression days of the early 1930s.

He also remembers his three years of service as School Physician for Montgomery County, during which time he called on all Negro and white schools in the county and spoke to the elementary school children about health matters. He still remembers his lecture in which he gave the children the "A, B, C, D and E Health Program." He used this approach because it was easy for the children to remember.

"I told them that 'A' stood for air and that we all needed fresh air because that was the way we obtained oxygen in our lungs to purify them and to give us protection against disease," he said.

The letter "B" stood for bowels, Dr. Dawson said, and he would emphasize to the

children the importance of normal bowel function.

"C" stood for citrus or vitamin C, and Dr. Dawson would explain that this vitamin was of great importance in the prevention of scurvy, gum infection and beri-beri.

In his alphabetical lecture on health, "D" stood for dirt and discipline. (Obviously, Dr. Dawson prescribed a little philosophy along with his medicine).

"One cannot be in good health unless he pays attention to his personal cleanliness," he explained. "Without discipline a child is not happy; one does not have to use force but kindness, patience and consideration in dealing with children."

The last letter of the lecture, "E", stood for exercise and education.

It would seem that Dr. Dawson's "ABCD & E" lecture on health is no less applicable today than it was 30 years ago.

Dr. Dawson, in taking his long look back, could not help but recall a few amusing incidents.

One such story concerned a middle-of-the-night call from a distressed mother, upset about her three year old child. The child was running a fever and crying constantly. Dr. Dawson advised her to get a certain type of medication, then put five or six drops of it in the child's ear.

About 30 minutes later, just as he was getting back to sleep, Dr. Dawson was called again by the mother.

"Which ear do I put it in," she asked.

"I told her to put it in the right ear," he said, "then I went back to sleep."

"A week later the mother was in my office and she was still amazed that I had known which ear to put it in. It seems the child had dropped off to sleep shortly after I suggested the right ear," Dr. Dawson said.

Dr. Dawson admits that he had a reputation among the parents of his patients as being very stern.

"When I told them what should be done for the child I expected them to do it," he said. "Many of the parents would not come to my office without a pencil and paper—they wanted to be prepared to write down exactly what I told them to do."

Before closing, Dr. Dawson paused for a moment to look at medicine today, and to discuss one of its most critical problems—government interference.

"We hear a great deal now about government interference with medicine," he said. "Personally I feel that if the doctors in America do not realize that the practice of medicine is for suffering humanity and also for them to make an average income, then we can expect some government interference and perhaps even partial socialized medicine."

"It is my sincere hope that government can be kept out of the practice of medicine, not so much for the sake of the physician, but more importantly, for the sake of the patient," he continued. "It would be the patient who would suffer the most from such interference."

Sen. Lister Hill to Give Martin Memorial Talk

Sen. Lister Hill (D-Ala.) will give the Franklin H. Martin Memorial Lecture on Thursday, Oct. 5, at the 53rd Annual Clinical Congress in Chicago.

The senior senator from Alabama often has been called a "Statesman for Health." In the Senate he has been chairman of the Committee on Labor and Public Welfare since 1955.

He is the co-author of the Hill-Burton Act, which grants federal funds for hospital construction.

In 1959 Senator Hill received the Albert Lasker Award for Medical Research.

He is the son of the late Luther Leonidas Hill, F. A. C. S., 1913.



"When I couldn't even smell corned beef and cabbage,
I decided it was time for you, Doc."

Maybe he doesn't know when he's well off. But you might want to prescribe long-acting Novahistine LP anyway.

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Must You Be God Always?

Claude L. Brown, M. D.

Mobile, Alabama

Dr. Wilcox ate the last crumb of gingerbread, drained the coffee cup with relish, and arose from the rocking chair. He didn't often make house calls, but 70 year old Miss Hattie had been a patient for many years; she was recovering nicely from pneumonia, and he had 'come by on your way home from the office.'

"Before you leave, Doctor there's something else I want to ask you," she said, offering the coffee-pot to him.

"No more coffee, Miss Hattie, thank you," he said. "What's your problem? But don't ask me about that worthless yard man of yours."

"It's not the yard man." She paused, lightly touched one of the remaining squares of gingerbread, and then looked sharply up at him. "I've been offered a lot of money for my place here. A motel chain wants it, and it's almost too good an offer not to accept. I can move into an apartment—save money and the trouble it is to run this big old barn. What do you think I should do?"

Dr. Wilson picked up his bag with his left hand, a piece of gingerbread with his right, and on the way to the door replied, "Sounds like a mighty fine idea—certainly save you money—an apartment would get you closer to people, too. You're a better cook by the year. Thank you so much, Miss Hattie. I'll call you in two days."

Miss Hattie had lived all her life in this family home. She knew the shadow cast by every oak and pine; in the dark she could thread her way unerringly through every room; and sometimes when she was quite lonely she could hear, ever so faintly, her mother singing in the kitchen.

She wanted to move to an apartment no more than she wanted to move to Madagascar. But she *did* want to voice her thoughts about the matter. She needed, as we so often do, an opportunity to hear what she was thinking. But Dr. Wilcox, competent at exorcising the pneumococci, and entirely appreciative of the gingerbread, did not serve as the catalyst in the free expression of his patient's feelings.

His casual response reflected no deliberate unkindness by him. What did it reflect? Perhaps he was weary from the day's grind, and, eager for his hearth and semi-oblivion, mildly irritated at a delaying question. A question, too, that had nothing to do with pathology or pharmacology. Dr. Wilcox had a sharp view of some aspects of internal medicine, but he felt bored or uneasy when issues became 'personal.' So his direct answer, fragmentary as it was, closed the door to Miss Hattie.

* * *

Mr. Thomas Eldridge, successful contractor; at ease in church, club and inevitably after three drinks; a staunch believer in the efficacy of the prosaic virtues, pounded vigorously on Dr. Herbert's desk. "The boy is plain daffy, Doc. He makes good grades, got plenty of friends. I give him a car, money —he's a good boy, no trouble. But this—" Eldridge, breathless, paused on the brink of apoplexy.

Dr. Herbert's leonine head nodded ponderously; his gaze traveled slowly from his left finger-tips to his right finger-tips, and then back to Mr. Eldridge's steaming face. He said, "You find it strange that your boy, after two years of engineering school, suddenly wants to transfer to the school of music? Well, I thoroughly agree with you. It's total nonsense. He can come right back here, go in with you—it's an assured future."

"That's what I tell him," exclaimed Eldridge. "Musicians are a goofy bunch. I

don't know how he expects to make a living. I'm refusing to help him at all."

Dr. Herbert did not know the difference between a cadenza and a clarinet, but he felt in his heart of hearts that he had his finger on the pulse of the verities of life. No question of human conduct was ever presented to him that found him lacking for an answer. Usually a fast one. For he was convinced of his own omniscience. He never doubted that he was well up on the slopes, if not at the actual summit, of Mt. Olympus. He had an unshakeable aplomb when confronted with questions like, "Don't you think Joe and I should move away from mother?" or "Should we have another child"? *He knew the answers.*

He never permitted his authoritarian role, which is automatically a part of the image of every doctor, to be put aside for a moment. Doctors and priests possess much potent magic. Most doctors are respected, even at times revered. Their influence on the lives of patients cannot be overestimated—both by what they do with scalpel and drug, and by what they do with their attitudes.

Medical practice has been a rampart of individualism; an affirmation of the vis-a-tergo of life itself in the face of pain, disease, and the tribulations of the human estate. However, the longer a doctor practices the greater is the hazard of his becoming more authoritarian. Thus the more readily he pontificates, becomes rapidly judgmental and arbitrary, and so removes himself further from better understanding the multitudinous problems of his vexed and vexing patients. This ready-made position of high trust and confidence can be constructively used by him, or it can be a devastating weapon.

Dr. Herbert's adoption of a fixed attitude stops all production from the patient. It is an old adage that a part of the practice of medicine is the ceaseless collection of data. Often the doctor, from his own insecurity, will make some statement that stops the patient's verbalization. This is no great help to the patient, although it may allay the doctor's anxiety. Beneath Dr. Herbert's omniscience is his desire to be rid of the patient, to stop his verbalization, and possibly to reinforce the doctor's feeling of self-importance.

* * *

Most of us mere mortals operate with a slightly less encompassing awareness than does Dr. Herbert. I'm thinking of my friend, Dr. Pettigrew. His is the polar extreme of Dr. Herbert's all-knowing faculty. Pettigrew thinks that he doesn't know clearly *any* answers to the varied non-medical questions presented to him. But he is profoundly convinced that he must find, and find immediately, the response sought. Given the proper settings, Pettigrew would have been a hero hundreds of times. His fingers are always sore because he is constantly stumbling upon leaking dikes.

"What do you think, Doctor, of the minister suggesting that the teenagers discuss sex with the youth leader?"

This query arouses Pettigrew like a trumpet call to Armageddon; at the same time he is as staggered as if he had been required to discuss the Conics of Euclid.

But with this impassioned doctor, it's—'To horse—to the barricades.'

He has an instantly awakened eagerness to fling himself into any issue brought to him —usually without any clear idea regarding the meat of the problem, why he is being petitioned for guidance, or what his role might or should be.

It is whispered that "he is so interested in civic matters." Sometimes he truly is interested, and occasionally he does make a substantial contribution to some matter. But much more often he wastes tremendous effort, solely from his need to be involved. It is enough that a problem is presented to him: perforce, he must engage himself. His nose is not keen enough to recognize the odor of the unworkable; he flings himself as brisk-

ly upon a feather bed as upon a picket fence.

He worries himself, his associates, his family by his hyper-availability. His patient, Tom Jackson, age 64, is thinking of marrying a 40 year-old lady. Tom's grown children, also Dr. Pettigrew's patients, are uneasy over father's amatory impulses. Everybody seeks the trusted family doctor's advice.

"Dad is getting senile. You know that, Doctor. That woman really just wants his money. You've got to talk to him."

"Well, you may be right. I'll bring it up to him," says Dr. Pettigrew.

"Listen, Doctor, those kids may think I'm soft in the head, but I'm not so soft there, or anywhere else. If I want to get married it's my business. Tell them to leave me alone."

Dr. Pettigrew, unhappily, "Well, I know what you mean. I'll see if they'll listen to me."

Dr. Pettigrew misses hypocrisy by a bare inch, the inch being what he considers his sincerity. His indiscriminate intensity of engagement cloaks his fearfulness of being impotent to deal with a situation. At all costs, he must furnish an answer, leap into the breach, fix it. A partial vacuum inside himself craves constant fulfillment by a pseudo-helpfulness to others. He cannot trust his own feelings; when he is presented with a patient's distrust in his feelings, then Pettigrew becomes doubly tense, and thus hurriedly tries to f i n d the answer—the answer to his own uneasiness.

Every doctor is often asked for advice on non-medical matters. How he handles this advice-seeking shows important aspects of his personality. Words are, indeed, like magic, and especially so when they come from one who is already wrapped in the sorcerer's cloak. It is part of man's nature to seek an oracle. If the oracle can be com-

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forting that's even better, and if there is a touch of the beneficent helper thrown in then the combination is almost irresistible. Many a patient has graven into his memory for all time the words of a doctor—to the weal or woe of that patient.

But who wants advice, anyway? Isn't it well known that advice is everywhere readily available—and not worth much? As Chesterfield said, "Advice is seldom welcome; and those who want it most always like it least." The problems that impel people to seek help are usually without concrete answers. The questions express the perplexities of the human spirit with its frequent ensnarement in paradoxical sentiments, conflicting loyalties, and the ambiguities of motivation. Who has fast answers for these conundrums?

When my non-medical advice is asked for some apparently insoluble problem, my first question (to myself) is; just what is really being sought? In order to better ascertain this I try to give an answer that opens up the area for further discussion. Such discussion usually enables the patient to air his feelings and thoughts. Often just this process is quite relieving. To skillfully facilitate ventilation is an excellent technique, always useful to any doctor.

A response to the *feeling* that the patient is expressing rather than to the actual verbal meaning, helps the further mobilization of feelings: "I'm so mad with Joan for staying out til three AM with Tom. What shall I do with her?"

Obviously, I don't automatically know what mother should do with Joan. But I do see that mother is upset, so I say, "Were you worried about her?" This is palpably simple, but it works. She proceeds to tell her uneasiness, to consider other aspects of her relationship with Joan, and quite often feels better about the issue—without my giving her any tangible answers to her opening question.

But if the doctor is too anxious, or playing God, or too depressed—if, for what ever reasons, he cannot tolerate the advice-seeking—he may well shut the patient up. Or he may implant in the patient's mind the feeling that he, the doctor, is either disapproving or non-comprehending of whatever the issue may be. After all, it is the patient's problem, not the doctor's And the business of 'if you were me what would you do?' is absolutely no good—for you are not me.

Patients bring all kinds of non-medical questions to doctors. This advice-seeking is an area where the doctor can be most helpful. His effectiveness is greater if he doesn't try to find a direct answer, but instead leads the patient to look further at the problem.

Mental Illness Guide Available

Mental illness is the subject of the 10th guide in the continuing series, "Guides to the Evaluation of Permanent Impairment," developed by the American Medical Association's Committee on Rating of Mental and Physical Impairment.

Designed primarily for physicians, this newly published guide, like others in the series, however, is of interest and use to all concerned with medical, administrative or judicial aspects of programs for the disabled.

Reasonable quantities of "Guides to the Evaluation of Permanent Impairment-Mental Illness," may be obtained without charge by writing to the Committee on Rating of Mental and Physical Impairment, 535 North Dearborn, Chicago, Illinois 60610.

Copies of the other nine guides in the series are also available. Covered in these guides are the extremities and back; the visual system; the cardiovascular system; ear, nose, throat and related structures; the central nervous system; the digestive system; the peripheral spinal nerves; the respiratory system; and endocrine system.



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MASA Committee on Legislation Considers Health Related Bills

The Committee on Legislation of the Medical Association has considered the 33 health-related bills pending in the Alabama Legislature in mid-June and has made the following recommendations:

Senate Bills

S. 19—This measure exempts all medicines prescribed by physicians from state sales tax. *No Position*

S. 21—This bill appropriates $40,000 to complete construction of the Pesticide Residue Laboratory at Auburn, under the control of the Department of Agriculture and Industries. *No Position*

S. 27—This requires any person beyond 15 years of age who has been convicted of crime against nature, sodomy, or any act of sexual perversion involving members of the same sex, or convicted of sexually abusing or attempting to abuse sexually any member of the same sex, to register with the sheriff of his resident county within 30 days after release from confinement. A penalty of five years in prison and a fine of $1,000 is established for willfully and knowingly violating this statute. *No Position*

S. 30—This measure appropriates $8,000 for each of the next two years to the Commission of Mental Illness of the Southern Regional Education Board. *No Position*

S. 39—General appropriations Bill, including the Departments of Health and Mental Health. *No Position*

S. 44—A Pike County local bill. This would authorize any corporate authority in Pike County to operate and finance an ambulance service. (The House version of this bill has already been enacted into law.) *No Position*

S. 57—This measure, which awaits the Governor's signature, will require banks to pay interest on state deposits. A part of the proceeds of this measure will go to mental health. *No Position*

S. 65—This is another bank interest bill, which was left in committee following passage of S. 57. *No Position*

S. 82—This measure proposes three changes in the Battered Child Law passed in 1965. *Endorsed (Starvation and sexual abuse, or attempted sexual abuse, are added to the law as crimes which must be reported to the appropriate officials.)*

(Also added is the requirement that when

a report is made to a law enforcement officer "such official subsequently shall inform the Department of Pensions and Security of the report so the department can carry out its responsibility to provide protective services to the respective child or children." One other change is proposed by this bill. The present law requires that a report of a mistreated child be made to the "nearest child welfare agency offering child protective services." The new measure would delete that phrase and insert in lieu thereof "or to the Department of Pensions and Security.") *Opposed*

S. 93—This measure would provide for $500 scholarships for nurses' training in Alabama. *No Position*

S. 94—This measure is identical to S. 93, except that it applies to Negro nurses' training. *No Position*

S. 96—This measure proposes to add two additional exemptions allowed under the Dental Practice Act of 1959. The two new exemptions are:

"No. 6. To the giving of a general anesthetic by a nurse anesthetist who administers a general anesthetic under the direct supervision of a duly licensed dentist to a patient who is undergoing dental treatment rendered by said dentist. *Endorsed*

"No. 7. To the use of a nurse in the practice of professional or practical nursing as defined in Act No. 867, Regular Session, 1965, by a dentist." *Endorsed*

S. 98—This measure provides for the use of chemical tests for determination of intoxication when a person is lawfully arrested for an offense allegedly committed while such person was driving a motor vehicle under the influence of intoxicating liquor. It provides for a blood test, urine test or breath test and specifies that the blood test must be given either by a physician, registered nurse, or duly licensed clinical lab technician. The measure exempts from civil or criminal liability those persons who administer the blood tests. It further provides that the Department of Public Safety in cooperation with the Department of Health shall adopt uniform standards for giving blood alcohol tests. *No Position*

S. 112—This measure proposes to create a Commission on Physical Fitness made up of 25 members appointed by the Governor. *No Position*

S. 145—This measure amends existing statutes relative to the driving of motor vehicles while under the influence of drugs. The amendment simply makes more specific the drugs covered by the existing law. It further amends the law to include passengers of vehicles in the event the driver and all passengers aboard are under the influence of drugs or alcohol. *No Position*

House Bills

H. 5—Same as S. 19

H. 23—Same as S. 39

H. 30—Same as S. 30

H. 38—This gives the same deductions for medical, dental, and drug expenses under state income tax as is allowed under federal income tax. *No Position*

H. 40—Same as S. 98

H. 56—This measure would substantially increase the license fees paid to the Healing Arts Board by physicians, chiropractors, chiropodists, osteopaths. The following increases are proposed: *Opposed*

	Present	*Proposed*
Application for license	$10.00	$25.00
Annual license fee	5.00	15.00
Half-year fee	2.50	7.50
Late charge (30 days)	10.00	20.00

H. 62—Same as S. 21

H. 64—Same as S. 57

H. 88—This measure would allow publicly owned hospitals, nursing homes, rest homes, or other publicly owned medical in-

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stitutions to be audited by a Certified Public Accountant rather than by the State Department of Examiners of Public Accounts. *Endorsed*

H. 91—Same as S. 44

H. 98—This is a proposed constitutional amendment to allow five mill property tax in Walker County to finance construction and operation of hospitals or health facilities. This measure has been enacted into law. *No Position*

H. 107—This bill would require the Department of Pensions and Security to pay old age pensioners a maximum of $15 a month for drugs prescribed by a duly licensed physician. *No Position*

H. 113—This measure would make it unlawful to lure a child under the age of 16 for the purpose of proposing sexual intercourse, sodomy, fondling, feeling genital parts or breasts, etc. It provides a punishment of five years in prison and a $5,000 fine for the first conviction and ten years for the second conviction. (No probation) *Endorsed*

H. 114—This fixes the punishment for indecent exposure by a male to children under the age of 14. The punishment is the same as stipulated in H. 113. *Endorsed*

H. 115—This is a companion measure to the previous bills. This measure simply defines indecent molestation. *Endorsed*

H. 118—A local anti-water pollution bill applying only to Marion County. *No Position*

H. 120—This specifies that a contract for ambulance service shall not be considered as insurance and, therefore, not subject to regulation by the Insurance Department. *Opposed*

H. 130—A local bill to permit governing bodies in Covington County to contribute public funds to a voluntary rescue squad. *No Position*

H. 151—Same as S. 94

H. 152—Same as S. 93

AMA Summary of Federal Support of Medical Research

What has been the impact of the federal government's support of medical research upon the conduct of research itself and upon medical schools, the education of physicians, and the provision of medical services?

The Commission on Research, created by the American Medical Association's Board of Trustees in June, 1964, to study this significant question, reported its findings in its report, "Summary of Conclusions of the Commission on Research," which appeared in the March 6 issue of JAMA.

Because of the widespread interest in the subject, reprints of this article have been prepared. Complimentary copies may be obtained by writing the Program Services Department, AMA, 535 North Dearborn, Chicago, Illinois 60610.

Course In Postgraduate Gastroenterology

The American College of Gastroenterology announces that its Annual Course in Postgraduate Gastroenterology will be given at The Biltmore in Los Angeles, Calif., on 2, 3, 4 November 1967.

The faculty for the Course will be drawn from the medical schools in and around Los Angeles. The subject matter to be covered in the Course, from a medical as well as surgical viewpoint, will be, essentially, the advances in diagnosis and treatment of gastrointestinal diseases and a comprehensive discussion of diseases of the esophagus, stomach, pancreas, liver and gallbladder, colon and rectum. In addition there will be individual papers and films of interest.

For further information and enrollment write to the American College of Gastroenterology, 33 West 60th Street, New York, N. Y. 10023.

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Dr. Jack C. Hughston To Speak At Oklahoma Sports Medicine Meet

Dr. Jack C. Hughston, Columbus, Georgia, orthopaedic surgeon and orthopaedic consultant to Auburn University, Auburn, Alabama, and Chairman of the American Academy of Orthopaedic Surgeons' Committee on Sports Medicine will be one of many National lecturers at a special postgraduate course of the AAOS, August 14-16 at the Skirvin Hotel in Oklahoma City, Oklahoma.

Invited to attend the three-day course of lectures and audio-visual demonstrations are orthopaedic surgeons, general physicians, high school and college team physicians, and others with a medical interest in the care of the athlete. It is to be sponsored by the Academy's Committee on Sports Medicine in cooperation with the United States Olympic Medical and Training Services Committee and the Department of Orthopaedic and Fracture Surgery, University of Oklahoma School of Medicine, Oklahoma City.

Chairman of the course is Dr. Don H. O'Donoghue, Chairman of the Orthopaedic and Fracture Surgery Department at the medical school. The faculty is composed of distinguished lecturers from 14 states and Canada as well as members of the University staff.

Lecturers will discuss in depth topics including altitude and other medical problems related to the 1968 Summer Olympic Games in Mexico City, the adolescent athlete, competitive swimming, the anthropology and physiology of endurance runners, mechanics of running, the use and misuse of drugs in athletics, and effects of vigorous athletic activity on women

A symposium on the arm in such throwing sports as baseball, javelin, shot put, and discus will feature talks on shoulder joint and muscle injuries, elbow injuries and the aging pitcher A special day-long forum will be devoted to diagnosis and treatment of knee injuries.



Dr. Jack C. Hughston

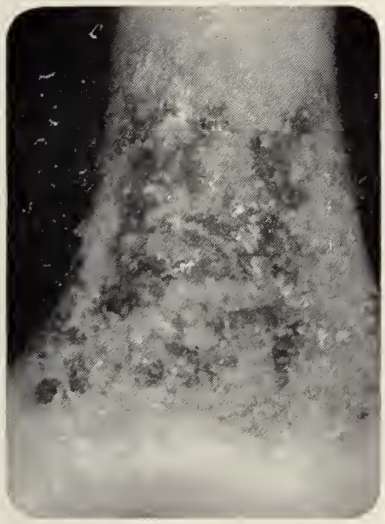
For application forms and further information, physicians are asked to write to Dr. Don H. O'Donoghue, 1111 North Lee Street, Oklahoma City, Oklahoma 73103, or to the American Academy of Orthopaedic Surgeons, 29 East Madison Street, Chicago, Illinois 60602.



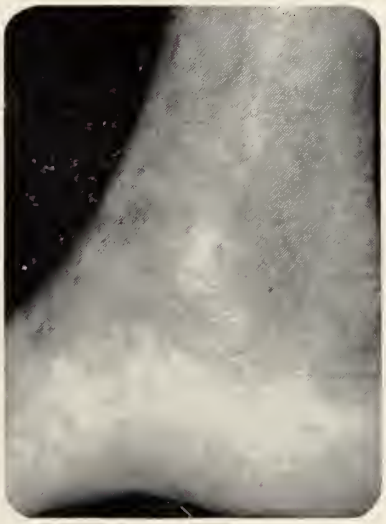
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Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

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Strong Religious Faith Plays Integral Part In Practice Of Medicine

Dr. Milford O. Rouse New AMA President

The physician is the best therapeutic agent ever devised—better than sulfa compounds, better than antibiotics and better than surgery. What makes him so is his spiritual capacity.

That is the philosophy embraced by Milford O. Rouse, M. D., the new president of the American Medical Association. Dr. Rouse became the 122nd president of the AMA at the annual convention in Atlantic City, N. J. in June.

Dr. Rouse's strong religious faith plays an integral part in his practice of medicine. On many occasions, in speaking to medical students and to his colleagues, he has made this point:

"We need no less of the science, but infinitely more of the art of medicine."

And what is this art? Dr. Rouse insists it is the love, the genuine love for people—the outcropping of a sincere religious faith—which enables the doctor to inspire confidence and provide a gentle, understanding touch.

It is not surprising that Dr. Rouse is the son of a Baptist missionary. He was graduated from Baylor University College of Medicine in 1927, and for the first seven years of his practice was associated with Dr. H. G. Walcott in Dallas, the latter being the first Texas physician to limit his practice to gastroenterology.

Dr. Rouse has been clinical professor of medicine at the University of Texas Southwestern Medical School since 1943. Before being named president-elect of AMA in 1966 he had been both speaker and vice-speaker of its House of Delegates. Appropriately, he was the first chairman of the AMA Committee on Medicine and Religion.



Dr. Milford O. Rouse

He was the recipient of the first Distinguished Alumnus Award of the Baylor Medical Alumni Association and also was awarded the Distinguished Service Award from both the Texas and Southern Medical Associations. In 1967 he was named by the *Dallas Times-Herald* as its Man of the Year.

Dr. Rouse has strong convictions as to how this nation's unmet medical needs can be solved. He believes it can be done by physicians working through local, state and national societies.

"If we are typical responsible citizens, we

(Continued on Page 81)


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Injections in this office are given with TUBEX*, using a new, sterile disposable unit with a new, supersharp, stainless steel, siliconized sterile needle
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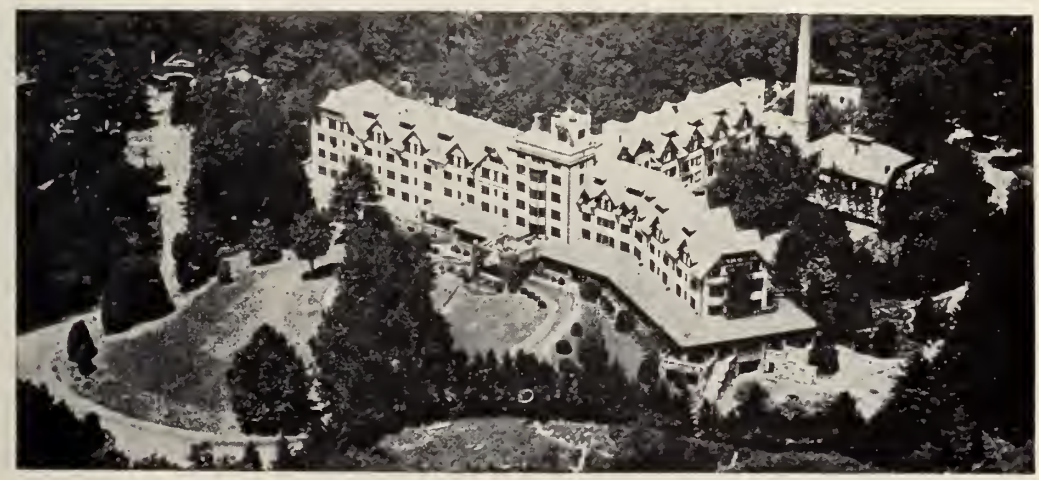
(Continued from Page 78)

are going to be the health advisors of communities as well as doctors," he said. "The health field is now the third largest, exceeded only by agriculture and construction, and we need more physicians and more people in allied professions."

"In 1946 we turned out 5,000 medical school graduates, and in 1966 we had 7,600—a gain of 50 per cent—and we still need more," he continued. "I feel strongly, however, that the greatest need right now is for family physicians and I intend to give this all the support I can. Curriculum changes will doubtless come, and we will need family practice residencies in more hospitals."

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Wm. Ray Griffin, Jr., M. D.
Robert A. Griffin, M. D.

Mark A. Griffin, Sr., M. D.
Mark A. Griffin, Jr., M. D.

Alabama Department of Public Health

Program For Teaching Dental Health Education

Naseeb L. Shory, D. D. S., M. P. H., Director

Bureau of Dental Health

Alabama Department of Public Health

The dental health education program of the Bureau of Dental Health is available without charge to teachers in all schools, public and private, in Alabama. The purpose of the program is to better prepare classroom teachers to teach dental health. It is designed to avoid advertising and commercial promotion of products or services.

The program is structured around the use of a comprehensive 100 page book entitled "A Guide for Teaching Dental Health in Alabama Schools." This book is available to teachers and education students free of charge. It is distributed during in-service training conferences or teacher workshops and to education classes in colleges. It has been found that the book and supplementary materials are more effectively used when the teachers or students have attended an orientation program or lecture presented by the Bureau of Dental Health and sponsored by the local board of education or the college or university.

To date, over 17,000 copies of "A Guide For Teaching Dental Health in Alabama Schools" have been distributed to educators at all levels.

After the program has been presented to a school system or college class, the teachers or students are encouraged to request dental



health education materials from the health department. A wide variety of attractive pamphlets, coloring books, printed materials, and audio-visual aids are available without cost. Films and film strips are also available on a free loan basis.

This program has been endorsed and approved by the Alabama Department of Education, the Alabama Department of Public Health, and the Alabama Dental Association.

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1967

	April	May	*E. E. May
Tuberculosis	144	130	143
Syphilis	98	134	135
Gonorrhea	273	336	325
Chancroid	1	1	1
Typhoid fever	1	0	2
Undulant fever	0	0	0
Amebic dysentery	1	0	3
Scarlet fever & strep. throat	580	438	77
Diphtheria	0	0	0
Whooping cough	3	12	6
Meningitis	9	6	6
Tularemia	0	0	0
Tetanus	2	0	2
Poliomyelitis	0	0	0
Encephalitis	0	0	1
Smallpox	0	0	0
Measles	292	292	421
Chickenpox	163	42	161
Mumps	153	105	77
Infectious hepatitis	43	25	46
Typhus fever	0	0	0
Malaria	0	0	0
Cancer	1,000	393	728
Pellagra	1	1	0
Rheumatic fever	19	7	19
Rheumatic heart	24	18	26
Influenza	376	55	90
Pneumonia	491	245	276
Rabies—Human Cases	0	0	0
Pos. animal heads	12	4	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph. D., Director

MAY 1967

Examination for Intestinal Parasites	1,819
Examination for Malaria	2
Salmonella & Shigella (blood-feces-urine-food)	286
Examination for tubercle bacilli	4,635
Examination for gonococci	2,238
Serological test for syphilis	32,259
FTA	33
Darkfield	2
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	93
Staphylococcus (cultures for isolation and confirmation)	231
Examinations for diphtheria	10
Streptococci examinations	2,086
Mycology	29
Agglutinations	16
Vincent's infection	1
Complement fixation tests	144
Test for Phenylketonuria (PKU)	6,505
Cytology	948
Water examinations	4,024
Milk and dairy products examinations	4,838
Sea food examinations	207
Examination for Negri bodies (smears & animal inoculation)	516
Virology	13
Rh Factor bloods	778
Miscellaneous	595
TOTAL	62,308

Bureau of Vital Statistics

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

MARCH 1967

Live Births / Deaths / Causes of Death	Number Registered During March 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	5,161	3,316	1,845	16.7	18.4	20.2
Deaths	2,582	1,744	838	8.5	9.4	10.6
Fetal Deaths	102	45	57	19.4	17.4	20.2
Infant Deaths						
under one month	86	46	40	16.7	14.2	18.4
under one year	138	61	75	26.7	28.2	33.6
Maternal Deaths	4	1	3	7.6	10.7	6.6
Causes of Death						
Tuberculosis, 001-019	24	12	12	7.9	8.0	9.1
Syphilis, 020-029	2	1	1	0.7	1.7	2.4
Dysentery, 045-048					0.3	
Diphtheria, 055						
Whooping cough, 056						0.3
Meningococcal infections, 057	4	2	2	1.3	0.3	1.0
Poliomyelitis, 080, 081						0.3
Measles, 085						0.7
Malignant neoplasms, 140-205	366	270	96	121.0	124.0	126.5
Diabetes mellitus, 260	54	32	22	17.8	18.4	21.6
Pellagra, 281	1	1		0.3		0.3
Vascular lesions of central nervous system, 330-334	329	209	120	108.7	125.0	158.0
Rheumatic fever, 400-402						0.3
Diseases of the heart, 410-443	904	671	233	298.7	305.3	336.3
Hypertension with heart disease, 440-443	96	45	51	31.7	44.1	42.0
Diseases of the arteries, 450-456	54	40	14	17.8	25.1	26.4
Influenza, 480-483	2	2		0.7	7.0	13.5
Pneumonia, all forms, 490-493	72	41	31	23.8	32.8	54.1
Bronchitis, 500-502	6	5	1	2.0	4.0	4.1
Appendicitis, 550-553	1	1		0.3	0.7	0.3
Intestinal obstruction and hernia, 560, 561, 570	9	7	2	3.0	3.0	5.1
Gastro-enteritis and colitis, under 2, 571.0, 764	5	1	4	1.6	2.0	2.7
Cirrhosis of liver, 581	21	15	6	6.9	6.4	7.1
Diseases of pregnancy and childbirth, 640-689	4	1	3	7.6	10.7	6.6
Congenital malformations, 750-759	28	17	11	5.4	6.4	5.0
Immaturity at birth, 774-776	30	14	16	5.8	4.7	9.2
Accidents, total, 800-962	186	129	57	61.5	73.6	65.6
Motor vehicle accidents, 810-835, 960	98	75	23	32.4	35.8	25.4
All other defined causes	359	218	132	115.7	139.1	131.9
Ill-defined and unknown causes, 780-793, 795	130	55	75	43.0	51.2	62.6

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal Deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The Department of Health, Education and Welfare is making a broad study of prescription drugs which will be the basis of a recommendation on whether their costs should be covered by medicare when they are used outside a hospital.

HEW Secretary John W. Gardner appointed a task force of HEW officials to evaluate the study and make the recommendation.

"Prescription drugs are an essential element of modern medical care," Gardner said. "In the last twenty-five years we have witnessed greater advances in the use of drugs than in the whole previous history of medicine. Today drugs and biologicals make possible the prevention and successful treatment of illnesses that were serious and frequently fatal.

"Yet for many older Americans the cost of needed drugs prescribed by a physician is a heavy burden, representing 15 to 20 per cent of their medical care costs. Many older Americans find themselves with limited financial resources at the very time that age brings an increasing incidence of chronic disease and greater needs for medical care, including prescription drugs."

President Johnson directed last January that Gardner "undertake immediately a comprehensive study of the problems of including the cost of prescription drugs under medicare." Studies on some aspects of the question were started then and are near completion. Other specific studies are in various stages of progress.

But Congress may decide the issue before the full study is completed. The Senate Finance Committee will hold hearings this summer on such a medicare extension.

Dr. Philip R. Lee, Assistant HEW Secretary and Chairman of the task force, said that even if the study is incomplete, HEW will take a stand anyway when the Senate Finance Committee takes up the legislation.

One bill would finance medicare coverage of drugs by increasing from $3 to $4 the cost of monthly premiums for the voluntary doctor bills insurance program (Plan B) for persons 65 and over. Sponsored by Sen. Joseph M. Montoya (D., N. M.) the bill would provide that generic drugs rather than trade name products be used whenever possible.

Another bill is sponsored by Chairman Russell B. Long, (D., La.), the Senate's leading critic of the drug industry. It would spur generic purchasing for all federally-connected welfare programs.

"The task force will examine a number of factors which are closely involved with the use of prescription drugs and with present and proposed methods of purchasing them," Lee said. "Many of these factors concern not only drug costs—and who pays them—but also the quality of medicare care."

Among the major areas listed for task force study:

1. Present patterns of drug prescription by physicians.

2. Present patterns of prescription drug use and expense by patients.

3. Present resources used to meet drug costs (including personal resources, aid from relatives, insurance, government assistance).

4. Present drug cost coverage programs (including federal, state, commercial insurance, union, and foreign programs).

(Continued on Page 88)



New, Long-term Psychiatric Facility

The new forty bed Parkwood Hospital specializes in long-term treatment of the mentally ill. Under the direction of a Medical Director, the hospital facilities are available to over thirty psychiatrists who are on its staff. Parkwood provides a full complement of exceptional facilities including X-ray, laboratory, pharmacy, occupational and music therapy, patient beauty parlor and an outdoor recreational area. ☐ Special efforts were made to combine maximum patient comfort with a warm, secure, residential atmosphere readily conducive to psychotherapy. ☐ We will be pleased to provide further information upon request.

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Many patients, with or without a functional illness, show symptoms o
an aging metabolism: disinterest... lassitude... vague aches and pains.

Mediatric® can help them lead a more active, useful life



Candidates for Mediatric

Commonly heard complaints from your geriatric patients may indicate an underlying disorder that may require immediate attention—and definitive therapy. But, with or without an underlying functional illness, the patients' physical and emotional well-being may be enhanced by adjunctive steroid-nutritional therapy. That's why so many patients just like these are suitable candidates for MEDIATRIC from their very first visit.

"... steroid-nutritional compound (Mediatric) was used in 100 patients to relieve some of the symptoms caused by degenerative changes of aging.... This therapy resulted in improvement of 75 per cent of the patients...."

McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

The estrogen content is PREMARIN® (conjugated estrogens—equine), the orally active, natural estrogen most widely prescribed for its superior physiologic and metabolic benefits. The combination of estrogen and *methyltestosterone* can help maintain an anabolic balance to forestall premature deteriorative changes of aging.

MEDIATRIC also supplies a small amount of *methamphetamine* to provide a gentle mood uplift; and nutritional supplements specially selected to meet the needs of the aging.

MEDIATRIC helps keep the older patients alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, and lack of interest so often associated with declining gonadal hormone secretion.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.

WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: **Male and female:** 1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

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Riboflavin	5.0 mg.	–
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Pyridoxine HCl	3.0 mg.	–
Calcium pantothenate	20.0 mg.	–
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(Continued from Page 84)

5. Distribution systems (including independent pharmacies, central pharmacies, mail-order distribution, physician dispensing, and hospital dispensing).

6. Reimbursement factors (including determination of costs; co-insurance; deductibles; and limitations on dollar costs, drug quantities, and drug types).

7. Accounting methods (including nomenclature, coding, data processing).

8. Pharmacological aspects (including generic equivalents vs. clinical equivalents).

9. Clinical aspects (including formulatory systems).

10. Legal and fiscal aspects.

11. Impact of proposed methods of purchasing prescription drugs on costs and quality of patient care, on medical profession, on pharmacy profession, on drug industry, on government.

* * *

Surgeon General William H. Stewart says that measles (Rubella) should be eradicated this year but other cripplers and killers like venereal disease and cancer still baffle researchers.

"This year, 1967, may well go down in history as the year of measles eradication in the United States," Stewart told a House Appropriations Subcommittee, in testimony recently published.

Stewart said the measles vaccine, licensed four years ago, is "bringing the disease to the vanishing point." The Public Health Service researchers now are working with an "experimental vaccine" trying to conquer German measles, he said.

Other health problems, such as cancer, heart disease and gonorrhea, continue, however, to pose numerous research problems, Stewart reported.

Stewart told the Appropriations Subcommittee that the "fastest rising causes of death and disability" in this nation are emphysema and other chronic respiratory diseases. He said deaths from emphysema and chronic bronchitis have increased about nine times in the last 20 years, causing more than 60,000 deaths a year.

The federal health official, who estimated that some 300,000 people die each year indirectly from smoking, also reported that a new less dangerous cigarette may be developed.

"There is reason to believe that the development of a less hazardous cigarette is potentially within reach," he said. But he put no timetable on development of this type of cigarette.

* * *

The American Medical Association supports all except one provision of legislation (S. 780) that would expand the federal government's role in the federal-state program to curb air pollution.

In a letter to the Senate Subcommittee on Air and Water Pollution, Dr. F. J. L. Blasingame, executive vice president of the AMA, pointed out that the AMA has been directing the attention of physicians and other health workers to the problems of air pollution through a series of meetings and its publications. He also noted that the AMA has supported such legislation in past years.

"In spite of past legislation and on-going federal, state and local programs which are carried on in cooperation with private industry, the American Medical Association recognizes that air pollution continues as a major environmental problem," Dr. Blasingame said. "Increased program emphasis on research and development in techniques of air pollution control and abatement is worthy of the support of the medical profession.

"The bill before you contains one provision which we cannot support. Section 107 of S. 780 would require the Secretary of HEW to establish emission standards for certain industries. On the basis of present information and understanding of the relationship between emissions and the effect it has on surrounding air, such a requirement is unrealistic and would not accomplish its intended purpose."

Vietnamese, U. S.-Medical Educators Meet with AMA

Dr. Ngo Gia Hy, dean of the University of Saigon Faculty of Medicine, met in Chicago May 24-26 with a group of medical educators and officials of the American Medical Association and U. S. Agency for International Development (AID) to consider immediate plans for the further development of the joint U. S.-Vietnamese program for strengthening medical education in South Viet Nam.

The appointment of Norman Hoover, M. D., Rochester, Minn., as new field director of the program was announced.

The program was initiated almost a year ago upon joint agreement by the governments of the U. S. and South Viet Nam, the American Medical Association and the Saigon Faculty of Medicine.

The American Medical Association supervises and coordinates the program, and invites selected U. S. medical school departments to participate, under a contract with the Agency for International Development.

The meeting held at AMA headquarters brought together representatives of all U. S. medical school departments that have been involved in the program, Dean Hy, AMA and AID officials to project the specific activities to be undertaken during the next academic year for strengthening the educational program of the medical school in Saigon.

Under the program, selected American medical educators act as advisors and consultants to counterpart educators in the Saigon school. Selected Vietnamese physicians and ancillary medical personnel will be brought to the U. S. for varying periods of specialized education as the need is indicated. Most of the American educators who have participated have spent up to a month in the Saigon school to learn specific needs.

The ultimate purpose is to increase the number of physicians in South Viet Nam and assure that they are trained to meet the medical needs of the Vietnamese. Of the approximately one thousand medical doctors in South Viet Nam, about 750 are in military service at any one time.

Dr. Hy expressed great satisfaction with the progress made by the program. He joined with project director Walter S. Wiggins, M. D., of the AMA staff, in stating that the program has had a most successful beginning. Both indicated the long-range nature of the project, however, and pointed out that 10 years of mutual effort will be required for its satisfactory conclusion.

"It is made all the more successful by the American Medical Association's participation," said Dean Hy. "The AMA provides a meeting ground for direct physician-to-physician contacts between Vietnamese medical educators and their American counterparts."

The new field director, Norman Hoover, M. D., is an orthopedic surgeon who is currently a staff member of the Mayo Clinic, Rochester, Minn. Beginning next month he will replace retiring field director Hobart A. Reimann, M. D., professor of medicine and preventive medicine, Hahnemann Medical College, Philadelphia, Pa. Dr. Reimann was in Saigon as field director from mid-January to mid-May.

Dr. Hoover's appointment and Dr. Reimann's retirement were formally announced by Robert C. Long, M. D., Louisville, Ky., member of the AMA Board of Trustees and chairman of the Chicago meeting.

"It is to the credit of Dean Hy and his colleagues, the U. S. medical school participants, and the administrative personnel of both AMA and AID that the program has come this far this quickly," said Dr. Long.

"We are now fortunate to obtain as field director a physician with Dr. Hoover's abilities and long-term experience and interest in South Viet Nam."

The field director's responsibility is to coordinate the program in Saigon.

Dr. Hoover first went to South Viet Nam

on a three-month tour with Project Hope and the Hope ship in 1961. He returned twice in 1962 with the Hope organization and again in 1965 with Project Viet Nam, the volunteer program now known as AMA Volunteer Physicians for Viet Nam and administered by the American Medical Association for the Agency for International Development.

"From the very first I was interested in the development of the medical schools at Saigon and Hue," said Dr. Hoover.

The present $3,500,000 medical school building at the University of Saigon was constructed jointly by the U. S. and South Viet Nam. The first class entered the building last year. About 50 medical educators are on the faculty, and the Government of South Viet Nam has agreed to release up to 30 physicians from military service for training to join the faculty.

Dr. Hoover and Dr. Hy left Chicago after the meeting for an eight-day tour of departments of participating U. S. medical educators. Dr. Hy will then return to Saigon. Dr. Hoover will return briefly to his home in Rochester, Minn., before leaving for his post in South Viet Nam. He will be on leave from the Mayo Clinic.

"I believe this cooperative venture is the greatest thing ever done by American medical education in a foreign medical school," Dr. Hoover declared.

"It is well planned. If it continues to be successful, it can serve as a model for similar programs in other developing nations."

Participating U. S. medical educators:

Charles A. Evans, M. D., Department of Microbiology, University of Washington School of Medicine, Seattle.

Lawrence S. Lilienfield, M. D., Department of Physiology, Georgetown University School of Medicine, Washington, D. C.

James B. Longley, M. D., Department of Anatomy, University of Louisville School of Medicine, Louisville, Ky.

Fred V. Lucas, M. D., Department of Pathology, University of Missouri School of Medicine, Columbia, Mo.

William D. Robinson, M. D., Department of Internal Medicine, University of Michigan Medical School, Ann Arbor.

William W. Schottstaedt, M. D., Department of Preventive Medicine, University of Oklahoma School of Medicine, Oklahoma City.

John Steinhaus, M. D., Department of Anesthesiology, Emory University School of Medicine, Atlanta, Ga.

Wilfred W. Westerfeld, M. D., Department of Biochemistry, State University of New York Upstate Medical Center, Syracuse.

Others taking part in the meeting included:

Laurence L. Robbins, M. D., Department of Radiology, Massachusetts General Hospital, Boston.

L. E. Horton, director, administrative services, Associated Colleges of Illinois, Chicago; advisor on cafeteria management.

Miss Eleanor Johnson, Bio-Medical Librarian, University of Chicago.

John Clay, M. D., Chief, Far East Health Branch, Agency for International Development.

Maj. Gen. James Humphreys, Jr., M. D., former assistant director of public health, Agency for International Development, South Viet Nam.

Walter S. Wiggins, M. D., American Medical Association, Project director.

Hugh H. Hussey, M. D., director, Division of Scientific Activities, American Medical Association.

The World Medical Association, Inc.

Individual membership in The World Medical Association is now open to all members of the American Medical Association.

Dues are $10 per year. This includes a subscription to *World Medical Journal* and the privilege of participation in the World Medical Assembly each year.

The 21st World Medical Assembly will be held in Madrid, Spain, September 10-17, 1967. The 1968 Assembly will be held in Australia.

The World Medical Association is a society of the free, professional medical associations of the free nations. Sixty national medical associations are members, including the AMA.

The 20th World Medical Assembly last winter in Manila created for the first time an individual associate membership within the WMA. Members of the national medical associations may now join WMA as individuals.

Gerald D. Dorman, M. D., of New York City, member of the AMA's Board of Trustees, is Chairman of the Council, governing body of the WMA. The WMA Headquarters Secretariat is located at 10 Columbus Circle, New York City. Secretary General is Alberto Z. Romualdez, M. D.

Application for individual membership may be made to WMA at the New York City office. Applications should be accompanied by a check for $10, with a statement that the applicant is a member in good standing of AMA. The letter should specify whether the applicant wishes to receive the *World Medical Journal* in the English, Spanish or French language edition. Checks should be made payable to The World Medical Association, Inc., a tax-exempt organization. Five-year memberships are available for $50. Information regarding the 21st World Medical Assembly will be mailed promptly to all applicants for individual membership.

"The World Medical Association," said Dr. Dorman, "is uniquely qualified to act as a force for peace and understanding in the world today. WMA is a very real and vital part of the world health picture, continually seeking to solve world medical problems through the community spirit and action of its professional membership."

Dr. Dorman made it clear that The World Medical Association has no connection with any government, that it is committed to the philosophy that medical and scientific knowledge should be universally available and free of all political control.

The WMA is present at conference tables around the world where decisions are made affecting the practice of medicine—and where the practicing physician's free enterprise viewpoint would not ordinarily be considered, he said.

"Thanks to WMA, the individual doctor has an effective, recognized international voice in health and professional matters now being considered by such government organizations as the World Health Organization (WHO), United Nations Educational, Scientific and Cultural Organization (UNESCO), International Labor Organization (ILO), International Social Security Association (ISSA), and other governmental and non-governmental bodies."

WMA was organized in 1947. In 1965 it was incorporated as a non-profit educational and scientific organization under the laws of New York State, U. S. A. With incorporation of WMA it was possible to obtain tax-free status recognition on funds donated to the organization.

The World Medical Association, Inc.

10 Columbus Circle, New York, N. Y. 10019

APPLICATION FOR MEMBERSHIP

I wish to become an individual associate member of THE WORLD MEDICAL ASSOCIATION, INC.*

☐ I am a member in good standing of the American Medical Association

I prefer the WORLD MEDICAL JOURNAL in ☐ English ☐ French ☐ Spanish

(One edition included in annual membership dues. Other language editions available at an additional $3.00 each annually.)

Annual membership $10.00 Five-year membership $50.00

Attached is my check for $_____.

(Make check payable to: The World Medical Association, Inc.)

Name (please print) _____

Address _____

*WMA, Inc. is a tax-exempt organization.

American Medical Association To Sponsor Ninth Conference On Medical Aspects Of Sports

The Ninth National Conference on the Medical Aspects of Sports, sponsored by the American Medical Association under the auspices of its Committee on the Medical Aspects of Sports, will be held in Houston, Texas, at the Hotel America on November 26, 1967. The Conference is held annually in conjunction with and on the first day of the Clinical Convention of the American Medical Association.

As was true of the previous eight Conferences, the Ninth will cover a wide range of subjects of interest to those serving school and college athletic programs. Included will be forums and discussion sections relating to prevention of knee injuries, sports cardiology, and quackery in sports. Two sessions will be devoted to a series of common clinical conditions of rather variable significance in the athletic setting (eg, gastroenteritis, concussions, genitourinary tract injuries, and rib injuries). At the Conference Luncheon, Eduardo Hay, M. D., Director General of the Centro Deportivo Olimpico Mexicano, will discuss the preparations for the 1968 Olympic Games.

"Facts On Quacks" Tells How To Avoid The Health Swindler

When you are sick or worried, or deeply concerned about the health of a loved one, you are inclined to be less skeptical of a "cure" that you think offers hope.

That's how the health quack gets his start; he preys on the desperation of people in trouble.

A new booklet tells how you can avoid the pitfalls of quackery. "Facts on Quacks," the first reference book of its kind, was produced by the American Medical Association in cooperation with seven private and governmental health organizations.

"Facts on Quacks" outlines the trade secrets of the health swindlers. You can get a copy by sending 30 cents to the American Medical Association, 535 N. Dearborn St., Chicago, Illinois 60610. Special rates are available for larger quantities (see below).

How can you recognize a quack? There's no ironclad method, but six familiar rules help:

1. The quack often uses a special or "secret" formula or machine that he claims can cure disease.

2. He may promise or imply a quick or easy cure, or he may talk about "pepping up" your health.

3. He advertises, using his "case histories" and testimonials from his patients to impress people.

4. He refuses to accept the tried and proved methods of medical research and proof. He clamors constantly for "medical investigation" and recognition, but he avoids a test or stops short of giving the data needed for a scientific evaluation.

5. He claims medical men are persecuting him or that they are afraid of his competition.

6. He claims that his method of treatment is better than surgery, X-rays, and drugs prescribed by a physician.

But what if he is a "Doctor?"

The quack often falsely assumes the title, "Doctor," and he may have a variety of spurious degrees following his name. Seldom is his degree a doctor of medicine. As is true in every profession, however, there are a few physicians who venture into quackery. But the quack is a pretender to skills he does not possess, so he can be dangerous to your health.

What if he claims he has "something new?"

This is a frequent method of operation of a health quack. He may claim to have made a "great medical discovery" with which he can relieve or cure many diseases. He may say his treatment or medication has won acceptance abroad, but that "unwarranted persecution" keeps it from being tried or accepted in the United States.

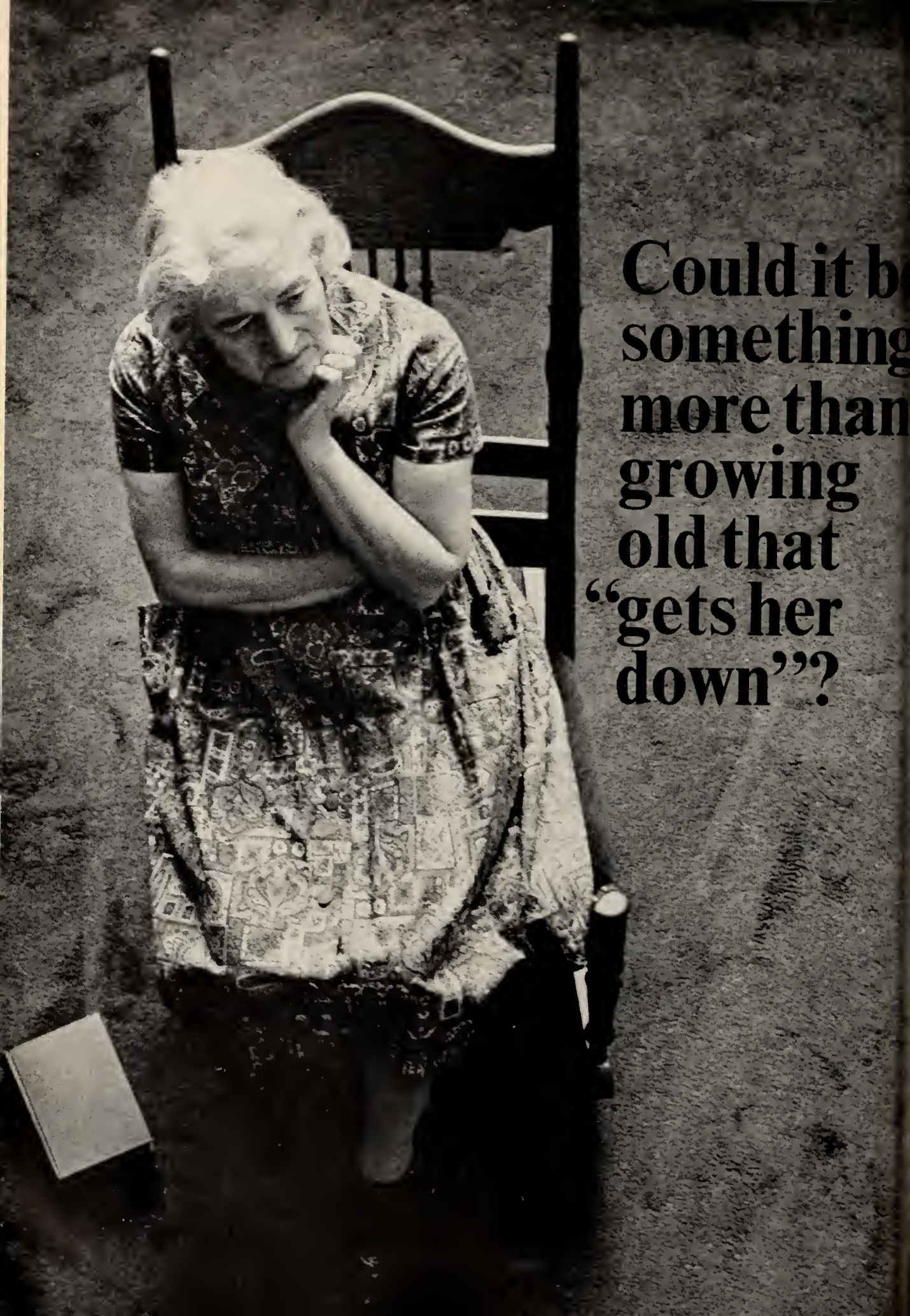
If all it costs is money, why shouldn't I try the treatment?

It can cost you more than money. Perhaps the most tragic of all persons who go to health quacks are those who are robbed of precious time. There is often an early period of disease when prompt, efficient diagnosis and treatment can mark the difference between life and death. For example, a cancer patient who uses expensive bottled sea water is only withholding from himself the treatment—radiation, surgery, chemotherapy or a combination of these—that might arrest or cure the disease.

The quack may wear many masks. Here are a few of the common ones:

—The "health" and "cult" practitioners, who come in many varieties. Some wear white jackets, look "professional" and have offices. They may have legally issued licenses, but these are limited—restricted to a certain area of practice. They are almost

(Continued on Page 96)


Could it b
something
more than
growing
old that
"gets her
down"?

Mild mood depression, poor appetite, little interest in the present or future. Does this picture mean that she's giving in to functional fatigue?

When functional fatigue is part of her problem, Alertonic can help counteract accompanying apathy and inertia. It helps lift mood, stimulate appetite, and establish new interest in daily life.

Pleasant-tasting Alertonic combines pipradrol hydrochloride—a gentle cerebral stimulant—with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Especially in the aging patient, nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding, and encouragement. Between visits, however, your prescription for Alertonic can help keep your patient from giving in to functional fatigue.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals ...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Available only on prescription

Alertonic®

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%, pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following:
manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Merrell

THE WM. S. MERRELL COMPANY
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

7-8378

(Continued from Page 93)

universally against immunization against diseases.

—The "health" lecturers. Their "free" presentation is often a come-on for a paid series of lectures, a course of instruction, or books they have written. They also may have available—at a price—a line of "health" foods and vitamins, special cooking utensils, or "health" gadgets.

—The "health" food promoters and "health" food stores. There are many special dietary foods that are valuable for people who have certain diseases. But these special foods should not be confused with the "health" foods and supplements promoted by food faddists as cure-alls. When these faddists claim that the American food supply is nutritionally deficient or that everybody is suffering from some kind of vitamin or mineral deficiency and therefore needs to take a food supplement, they are not telling the truth. They mislead you even with the term "health" foods, because it implies that their products have special health-giving properties when they merely have nutritional qualities found in other common food products.

—"Health" by mail order. Countless products sold by mail order give value to the buyer. But the U. S. Chief Postal Inspector has warned that some unscrupulous promoters seek to use the mails to sell quack medical products. Be wary of the fast-buck schemer who will sell you his product through the mails and boast that it offers, for example, a nutritional "miracle" or weight reduction "without dieting."

—House-to-House "doctors." They are salesmen, not physicians. They depend on their glibness. Their door-to-door product is usually sold at a high price, because several persons are sharing in the dollars quacks obtain in this way from you. They often talk recklessly about a "cure" or "preventive," because they think they don't have to be cautious in the private setting of your home without other witnesses.

"Facts on Quacks" answers many questions about the diseases and health problems on which quackery thrives. These include arthritis and rheumatism, cancer, nutrition and weight control, over-the-counter drugs, alcoholic nostrums, treatment devices, health books and pamphlets, epilepsy, mental health, retardation, cosmetic chicanery, baldness, rejuvenation, and sex preparations and devices.

Health quackery has many forms. It must

What national health organizations say about the new booklet, "Facts on Quacks:"

AMERICAN CANCER SOCIETY

". . . a useful, helpful guide on the subject of worthless remedies . . . puts into proper perspective much misinformation about the diagnosis and treatment of common illnesses . . . an excellent publication."

Roald N. Grant, M. D.
Vice President for
Professional Education
American Cancer Society

NATIONAL HEALTH COUNCIL

". . . a comprehensive and authoritative source to give people correct information on . . . vital matters that have become clouded and distorted by myths and quackery."

Peter G. Meek
Executive Director
National Health Council

NATIONAL BETTER BUSINESS BUREAU, Inc.

". . . attractive, readable and informative as a basic introduction to the contemporary problems of misrepresentation and quackery in the health field. I am particularly impressed with the balance, in many areas, given to a discussion of the problem and recommendations for proper caution and action."

Kenneth B. Willson
President
National Better Business
Bureau, Inc.

be fought vigorously and continuously. It keeps springing up because some unscrupulous promoters find it profitable.

"You are certain to suffer money loss if you turn to quack products or 'treatment'," the booklet says. "Far worse than the cost is a reliance on an ineffective product or treatment that makes you delay in obtaining proper medical treatment."

The following organizations cooperated in supplying data for the booklet. Inform one of them, or the local branch when you have a question involving the possibility of health quackery.

American Medical Association, 535 N. Dearborn St., Chicago, Illinois 60610.

Federal Trade Commission, Bureau of Deceptive Practices, Washington, D. C. 20580.

Food and Drug Administration, Department of Health, Education and Welfare, Washington, D. C. 20204.

Post Office Department, Bureau of the Chief Postal Inspector, Washington, D. C. 20260.

American Cancer Society, Inc., 219 East 42nd St., New York, N. Y. 10017.

The Arthritis Foundation, 1212 Avenue of the Americas, New York, N. Y. 10036.

National Better Business Bureau, 230 Park Ave., New York, N. Y. 10017.

National Health Council, 1740 Broadway, New York, N. Y. 10019.

Copies of "Facts on Quacks" are available from the American Medical Association, 535 N. Dearborn St., Chicago, Illinois 60610, at 30 cents each; 28 cents each for 50 to 99 copies; 25 cents each for 100-499; 23 cents each for 500-999, and 20 cents each for 1,000 copies or more.

Invest in the future health of the nation and your profession



Give to medical education through AMA-ERF

To train the doctors of tomorrow, the nation's medical schools must have your help today. It is a physician's unique privilege and responsibility to replenish his own ranks with men educated to the highest possible standards. *Medical education needs your dollars to stay strong. Send your check today!*

AMA-ERF

AMERICAN MEDICAL ASSOCIATION
EDUCATION AND
RESEARCH FOUNDATION

535 North Dearborn St., Chicago 10, Illinois

Community Medical Television System Dedicated

The Surgeon General of the U. S. Public Health Service has called for a vigorous attack on the problems created by the information explosion in the medical and health-related sciences. Dr. William H. Stewart announced, "I have authorized, with the endorsement of Secretary (John W.) Gardner (of the Department of Health, Education, and Welfare) the organizational transfer on July 1 of the Public Health Service Audiovisual Facility to the National Library of Medicine."

Speaking via video tape to 500 eminent physicians, researchers, and educators attending dedication ceremonies of a new Community Medical Television System in the Atlanta area, Dr. Stewart said that the Public Health Service will focus attention on improving and accelerating biomedical communications by merging the Service's two major elements concerned with medical communications. The ceremonies were held in the new auditorium of the USPHS's National Communicable Disease Center, 1600 Clifton Road, N. E., near the Emory University campus.

The Audiovisual Facility, to be named the National Medical Audiovisual Center, after July 1, will continue to utilize resources at its present location in Atlanta and Chamblee, Ga.

"The Facility's strengthened relationship with the world's largest medical library will better serve the needs of medical education, research, and practice," Dr. Stewart concluded. Formerly, the Facility was a branch of the National Communicable Disease Center.

The National Library of Medicine in Bethesda, Md., serving as a central resource for the nation's biomedical libraries, collects, organizes and makes available biomedical information to investigators, educators, and practitioners. The Audiovisual Facility plans, directs, conducts, and coordinates a national program in biomedical audiovisual communication.

Preceding the first public announcement concerning the Audiovisual Facility-National Library of Medicine merger, Dr. Stewart commended the leadership shown by cooperating health agencies in the Atlanta area in developing the Community Medical Television System.

"You may be sure that biomedical researchers, physicians and educators all over the nation will watch with intense interest the development and operation of this system," he said.

Following the Surgeon General's announcement, Dr. James Lieberman, director of the Audiovisual Facility, and Dr. Martin M. Cummings, director of the National Library of Medicine, commented on the merger and its possibilities for improving and expanding medical communication here and abroad.

Earlier Dr. Philip R. Lee, assistant secretary of Health, Education, and Welfare for scientific affairs and keynote speaker for the dedication program, said: "In concept this is truly a laboratory in communications medicine. On its successful operation hinges the ability of the health professions to harness one of the most versatile tools in the modern world of electronics to their own purposes—and to the well-being of our people."

Continuing, Dr. Lee said: "The significance of community medical television transcends the electronic technology involved in its transmittal. I think the major significance of this occasion is that we have at last begun to apply twentieth century technology to the health of the nation's people."

Establishment of the National Medical Audiovisual Center in Atlanta rounds out a growing medical complex which includes medical research, education and clinical practice. Located near the Emory University

School of Medicine and campus, the Audiovisual Facility is within line of sight of the Yerkes Primate Center, the Veterans Administration Hospital, the new Georgia Mental Health Institute, the Georgia Department of Public Health and many of the local hospitals of the area.

Presiding over the dedication ceremony with the Audiovisual Facility was the Council of the Community Medical Television System, which includes Emory University School of Medicine, Emory University Hospital, Georgia Department of Public Health, Georgia Mental Health Institute, Grady Memorial Hospital, Georgia Baptist Hospital, Crawford Long Memorial Hospital, and the Veterans Administration Hospital. Other local medical institutions are expected to join the system at a later date.

Mass Spectrometry Research

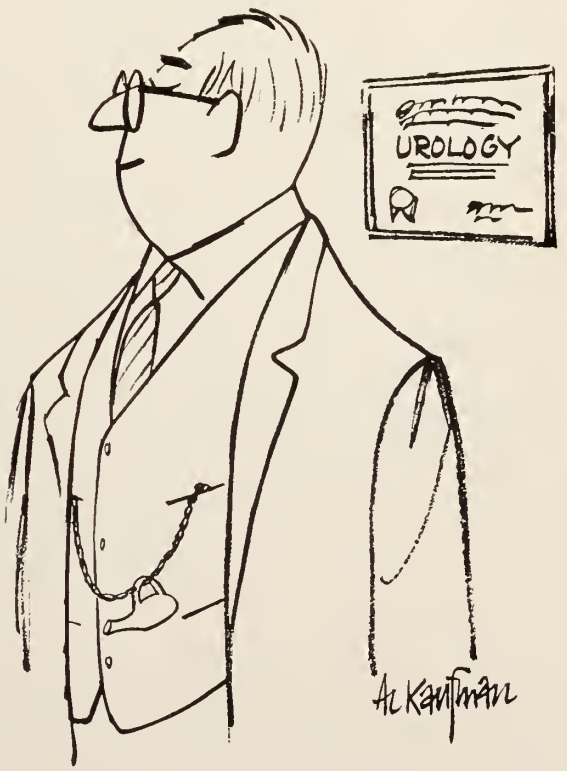
The research technique of mass spectrometry will be brought to bear on a wide range of health-related studies under a $175,514 award to establish a mass spectrometry center at the Research Triangle Institute, Durham, North Carolina, it was announced by the U. S. Public Health Service.

The facility, funded by the Division of Research Facilities and Resources, National Institutes of Health, will serve Duke University, Durham; the University of North Carolina, Chapel Hill; and North Carolina State University at Raleigh. The three schools own and share the independently managed nonprofit Research Triangle Institute.

Mass spectrometry is an advanced research technique that makes it possible for investigators to define the molecular structure of trace amounts of biologically important compounds or mixtures. This permits better understanding of biological processes and contributes to the solution of complex biomedical research problems.

The spectrometric resource at the Research Triangle Institute will be used in a broad variety of research projects such as: studies to determine the composition and structure of cell walls; research to analyze the chemical structures of the atmosphere to ascertain seasonal variations of compounds in air; investigations of the role of alkaloids in plant biochemistry; and as a tool in studies aimed towards synthesizing potential anticancer compounds.

The award brings to 63 the number of highly specialized institutional research facilities supported by the Division of Research Facilities and Resources of the National Institutes of Health. These facilities include computer centers, analytical instrumentation centers such as spectrometric facilities, and similar specialized resources needed by the scientific community for advanced research studies. To date, the Division has awarded $42,024,000 for support of such sophisticated biomedical resources.



Reprinted from THE NEW PHYSICIAN

Report From The Committee On Disaster Medical Care

Plans for the Committee's Regional Conference on Disaster Medical Care are now being finalized. The Conference, 22nd in the long series, was held on February 18-19, 1967 at the Colony Motor Hotel in St. Louis (Clayton), Missouri.

Medical Self-Help Training

More than 3,000 medical self-help training brochures have been sent to industrial physicians throughout the United States by the AMA Department of Occupational Health, at the suggestion of the Committee on Disaster Medical Care. The medical self-help program was developed by the USPHS in cooperation with the AMA Council on National Security and its Committee on Disaster Medical Care. The purpose of this mailing was to provide information for industrial employees to cope with emergencies when physicians are unavailable for long periods. When emergencies arise as a result of natural disaster, among workers in remote areas, or even during an employee's vacation period, the employee's ability to survive may well depend on emergency methods promulgated in this program.

Hampden Alert 66

Operation Hampden Alert 66 staged by the Hampden District Medical Society (Massachusetts) in cooperation with CD agencies and emergency departments in the district involved all of the 12 hospitals in the Hampden County area.

A total of 420 casualties resulted from the simulated disaster which occurred at a shopping center in Springfield on a busy Wednesday afternoon.

The drill started with a phone call from a communications center to police and the hospitals notifying them of the event. This resulted in the dispatch of the police vehicle to the site and the hospital's initiation of their disaster plans. On site mobile disaster teams consisting of doctors and nurses from the participating hospitals tagged and prepared the casualties for transport. The teams had all casualties dispatched in slightly over one hour.

Conclusions reached at the final critique of the operation included:

1. All hospitals were of the opinion that the drill helped in a realistic way with their own disaster planning programs.

2. Further clarification regarding the availability of medical supplies and drugs is needed. Some mutual arrangements might be made with local drug houses to accomplish this.

3. It was recognized that an adequate supply of whole blood would be a critical need in time of true disaster. It was agreed that some formula might possibly be worked out between the hospitals and the local Red Cross agency to create a central donor site.

4. The drill demonstrated the value of mobile medical teams and their establishment as a permanent part of the disaster program. The names of the members of the mobile teams could be kept in the Medical Society office, the Police Department and the Central CD agency. One weakness in the proper utilization of the teams is in regard to the lack of medical supplies on site.

5. Although CD communications worked well for the drill, in case of a true disaster communications from the site to the hospitals would have to emanate from some other source. It appears as if this should be more carefully worked out with the Police Department radio since police vehicles would be the first arriving at the scene of the disaster.

Spokane Disaster Test

In conjunction with the Spokane County Medical Society, the National Defense Trans-

portation Association, as well as every hospital in the county, a disaster exercise was conducted recently by the Washington City and County CD organizations.

The purpose of the exercise was to test techniques for handling a large number of casualties. It was laid out by Dr. Curran Higgins, Dr. Harvey Young, Dr. Jay Johnson, Clyde H. Friend, Spokane City Civil Defense Director, Weymouth C. McGrew, Spokane County Civil Defense Director, and many others.

Among participants were 900 hospital personnel, 600 "victims," about 400 assistants and 110 physicians, or one-third of the medical society. Since the doctors would be called out in three waves, those who responded to the simulated emergency call represented only the first wave.

The scenario of the exercise called for a tremendous explosion at a well-attended program in Spokane's huge Coliseum. It was assumed that the concussion and searing flames injured hundreds of people.

Trucks from the National Defense Transportation Association sped to the disaster scene, plus Spokane ambulances and city buses to help convey the injured to the various hospitals, where teams of doctors diagnosed the injuries and placed the victims in one of four categories, ranging from those requiring minimal treatment to those requiring immediate surgery.

The exercise lasted from 7 till 10 p. m; the entire activity being coordinated by Drs. Higgins, Young and Johnson from the CD Emergency Operating Center in the basement of City Hall.

Disaster Preparedness At U. S. Grand Prix

The Watkins Glen area has become the official home of the U. S. Grand Prix auto races, attracting upwards to 80-thousand.

This many people gathered in a relatively small area poses some special problems, not the least of which is a potential disaster at the race itself. Every precaution to prevent any casualties is taken. But should a disaster occur at the track, emergency medical facilities and personnel are immediately available.

The author and coordinator of this impressive master plan in Francis C. ("Pete") Ward, M. D., a general surgeon in the Schuyler County community of Odessa. Dr. Ward's assistant medical director is John F. Spring, M. D. of Binghamton.

At the annual Grand Prix, there were nearly 20 physicians, a dozen nurses, three well-trained first aid teams, four ambulances, and a U. S. Army Reserve Field hospital unit—all at the Watkins Glen track. The physicians included three general practitioners and three general surgeons; a like number of internists; an obstetrician, ophthalmologist, and an orthopedic surgeon; also four neurosurgeons, and a plastic surgeon.

At least one physician and nurse are assigned to each ambulance and first aid station strategically located around the track area. Thanks to an equally effective communications system, the hospital is alerted in the event of any serious injuries—the number of injured, and a description of injuries. The track physician-nurse team accompanies the injured in the ambulance to the hospital where Schuyler County physicians and other personnel take over.

The 73rd Field Hospital Unit, completely equipped and staffed for mass casualties, is set up in the midst of the spectator area.

In a continuing effort to improve disaster preparedness at Watkins Glen, and at tracks around the world, Dr. Ward is endeavoring to organize an International Association of Grand Prix physicians.

Sacramento's Disaster Radio Net

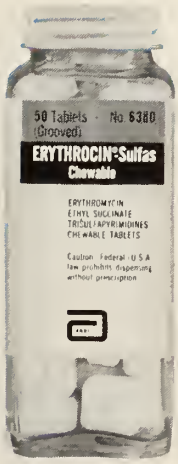
A radio-net designed to provide simple effective communications in the event of disaster has been established by the Sacramento County Medical Society. Less broad in scope

(Continued on Page 104)



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT

DISASTER MEDICAL CARE

(Continued from Page 101)

than the CD radio net, the physician-hospital system is geared toward control of local disasters such as plane crashes, train derailments, flood and riots.

Net control for the system which operates on 155.34 megacycles is located at medical society headquarters. Tied in are Mercy, Sacramento, Sutter General and Sutter Memorial Hospitals, which are equipped with transmitter-receivers tuned to the assigned frequency. Should an emergency arise the net will alert and dispatch medical teams to the site; establish an inventory of hospital facilities and act as a coordinating center.

In addition the society has purchased two mobile radio units and two walkie-talkies for site to base communications and on-site control. Radio equipment also has been installed in several physician's automobiles. Should there be a power loss due to a breakdown of the conventional system the society has also included a 10,000 watt emergency generator in its bank of equipment.

The program was instituted by L. Morgan Boyers, M. D., Chairman of the Sacramento Society's Disaster Radio Committee, as a result of a disaster test conducted in the city in 1960.

"The test revealed the medical communications were seriously lacking," Dr. Boyers said.

"We needed something that would mobilize and coordinate emergency medical services. Somehow we had to determine which hospitals had facilities and who was going to go where—but the switchboard was swamped with calls, so the telephone was useless."

Dr. Boyers and the Sacramento County Medical Society are justifiably proud of their latest achievement.

Helicopter Disaster Drill in St. Louis

Fifty fictitious patients, victims of an equally fictitious disaster, were flown to St. John's Mercy Hospital by helicopter last

month in what was perhaps the first helicopter disaster drill at an American hospital.

The Defense Department then gave the green light to send in a helicopter crew from the Strategic Air Command. The Naval Reserve unit at Glenview Naval Air Station, and the Army Aviation Material Command were joined by crews from the Missouri State Highway Patrol and from Fostaire Aviation in St. Louis.

In a simulated rush hour, with traffic snarled, the helicopters and their crews brought in the 50 patients in about 40 minutes.

Disaster Planning in Beranlillo County

In major disasters that have struck other cities, casualties have usually been brought to the nearest hospital, causing inadequate care and overcrowding, while nearby hospitals have received no casualties. In order to have the most efficient distribution, the Emergency Care Disaster Committee of Beranlillo County, Albuquerque, New Mexico, has set up certain guides for use in a disaster.

1. A central disaster headquarters has been designated and staffed 24 hours a day. Members of the disaster committee will meet at the headquarters in a disaster and help to coordinate the patient load and the supply problems of the local hospitals. A log containing all disaster information will be kept there. This includes the names of the Beranlillo County Medical Association, Red Cross, Civil Defense, members of the Disaster Committee, recently compiled lists of over 300 extra nurses, lists of pharmacists, and information relevant to the activities of the PDH and much other information.

2. All physicians will be assigned to the hospital in which they do most of their work. The names of the physicians assigned to these hospitals are posted in the emergency room and will be forwarded to each physician within the next month.

If a disaster strikes, a physician should remain in the hospital in which he is presently working but otherwise report to the hospital to which he is assigned. Specific hospital assignments will be made by the disaster chairman of each hospital.

3. Two teams of ten physicians each have now been assigned for hospital duty. These physicians will be immediately sent to the disaster area for triage. The physicians also will staff the PDH if these are needed to supplement the available hospitals.

4. There are three nearby PDH located in Belen, Beranlillo, and Nazareth Sanatorium which can be used to supplement available existing hospitals in a natural disaster and can be brought into town by truck within a few hours and set up in local schools.

The nursing team and paramedical personnel have been trained in the use of the Package Disaster Hospital.

5. An annual disaster drill will be held in conjunction with Hospital Week to test disaster facilities. Efforts are underway to coordinate activities with the American Red Cross, the Civil Defense, the American Hospital Association, and the Emergency Health Service Division of the New Mexico Department of Public Health. *Frank G. Hesse, M. D., Chairman, Emergency Medical Care Disaster Committee.*

PDH Program in Ohio

A half-day Package Disaster Hospital Training Program was held in Mansfield, Ohio, on October 22, 1966. The program was directed by Alvin Bales, M. D., Chairman, Civil Preparedness Committee, Mansfield General Hospital and Richland County Medical Society. The purpose was to familiarize attendees in disaster capabilities of the various package hospital centers and to acquaint them with PDH and its components.

Medical personnel from various hospitals of the Richland County area participated in the Seminar.

Fewer New Medicines Marketed

Fewer new medicines were introduced in the United States in 1966 than in any of the previous 18 years for which accurate records are available, Paul de Haen, Inc., Drug Information Services, reported today.

The number of prescription drug products introduced last year dropped to 80 from 112 the year before. Over a ten-year period the number of new medicines approved by the United States Food and Drug Administration for marketing has declined 80 per cent, de Haen said.

New drug products consist of single chemical agents, duplicates of existing products, combinations of existing products and new dosage forms.

Sharpest decline was in the number of single new chemical agents. The figure reached a new low of 12 after a high of 63 in 1959.

This number of single chemical agents introduced in the United States last year was lower than in any of the four major countries of western Europe, de Haen noted. Thirty-four were marketed in France, 42 in Germany, 20 in Great Britain and 21 in Italy. One-third of all these drugs were developed by American scientists.

During 1966 the American drug industry marketed in those countries seven new single chemical agents that were not available to physicians in the United States during the year, de Haen said. Two of the seven, however, were approved for marketing in this country in January 1967.

The seven drug products are: a highly potent diuretic, an antituberculosis agent, two tranquilizers, an antidepressant, an antiarthritic and a drug for anemia.

The number of firms introducing new drug products has also declined sharply, de Haen noted, from 127 firms in 1957 to 52 in 1966.

Comment

The figures for 1966 show a continuation of trends which have important implications for the American public. They are:

1. The decline in introductions of major new prescription drugs in the United States.
2. The increased time required by the Food and Drug Administration to act on approval of new drugs.
3. The increasing number of new drugs being marketed overseas before they are available to physicians in this country.
4. The decline in the number of American companies that are introducing new medicines. (Since the cost of pharmaceutical research is increasing—because of government regulations and because today's highly potent and ef-



Reprinted from **THE NEW PHYSICIAN**

fective drugs require more extensive studies prior to general release to the practicing physician—it is expected that drug research and development in the United States will eventually be conducted by fewer companies. However, the limited information from the FDA regarding the number of new drugs submitted each year for approval will make it difficult to assess the course of this latter trend.

de HAEN NEW PRODUCT SURVEY PHARMACEUTICAL SPECIALTIES INTRODUCED IN THE UNITED STATES

1957-1966

Year	Number of Drug Firms	Total New Products	New Single Chemicals	Duplicate Single Products	Combination Products	New Dosage Forms
1957	127	400	51	88	261	96
1958	126	370	44	73	253	109
1959	107	315	63	49	203	104
1960	109	306	45	62	199	98
1961	111	260	39	32	189	106
1962	108	250	27	43	180	84
1963	89	199	16	34	149	52
1964	82	157	17	29	111	41
1965	65	112	23	18	71	22
1966	52	80	12	15	53	26
		2,499	337	443	1,699	738

New Single Chemical Agents—indicates products which are new single chemical agents not previously known, including new salts.

Duplicate Single Products—products such as meprobamate which are put out by various manufacturers.

Combination Products—any product having more than one active ingredient.

New Dosage Form—if a product has originally been marketed in tablets and is now offered in ampuls, suppositories, etc.

Public Health Service Announces New Appointment

The Public Health Service has announced the appointment of T. Lefoy Richman as Chief of the Office of Information and Public Relations for the Service's new Bureau of Health Manpower. The announcement was made by Joseph A. Gallagher, M. D., Deputy Director of the Bureau.

Mr. Richman came to the Bureau from the National Commission on Community Health Services, which is now completing publication of the results of its studies. At the Commission, Mr. Richman was Assistant Executive Director for Communications. As such, he was responsible for production of the Commission's publications, for its special meetings and conferences, and for public relations.

In 1961 Mr. Richman joined the staff of the American Public Health Association (APHA) to coordinate activities of APHA and the National Health Council (NHC) leading to the formation of the projected Commission. APHA and NHC were sponsors of the Commission.

Before joining APHA, Mr. Richman was Associate Executive Director of the American Social Health Association from 1955 to 1961.

Prior to his work with the American Social Health Association, Mr. Richman served for 19 years in the Federal Government, including 12 years with the Public Health Service and three years with the Navy during World War II. He was Public Relations Officer in the Los Angeles area and subsequently Intelligence Officer during the invasions of Iwo Jima and Okinawa.

Mr. Richman is a graduate of George Washington University (B. A., M. A.). He is married and has three children.

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. For further information: write Mr. Emmett Wyatt, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104 or Phone 263-6441.

Physicians Wanted

General Practitioner—
For clinic-group practice. Located in town of 7,500 population in North Alabama. PW-1

General Practitioner—
For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-2

General Practitioner—
For town in Northeast Alabama, approximately 2,500 population in trade area of 10,000 population. Town has been without a physician since one died a year ago. Clinic available rent free and arrangements will be made for expansion and equipment. Hospitals are presently located within 20 miles and a hospital is being planned at nearby location. Large industry where physician might serve as company physician. Recreational advantages for water sports; churches and schools. PW-3

General Practitioner—
For town in Southwest Alabama, approximately 1,000 population in trade area of approximately 10,000 population. Arrangements available for office and equipment. PW-4

General Practitioner—
Needed for town of approximately 1,000 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-5

General Practitioner—
For town of less than 5,000 population in South-central Alabama. One of the two physicians died recently. Office and equipment available. PW-6

General Practitioner—
For town of 1,000 plus population in 10,000 population center in Northeast Alabama. Nearest city with population of 150,000 is a distance of 55 miles. Town offers to build a clinic or office and provide housing. Agriculture and textile industries. Several churches and one school. PW-7

General Practitioner—
For town with 2,350 population in East-central Alabama. Clinic available. Excellent recreational facilities near lakes. PW-8

General Practitioner—
For town of approximately 1,000 population in population center of approximately 10,000. Located in Southwest Alabama within 90 miles of the Gulf Coast. City-owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-9

General Practitioner—
Town with 10,000 population in county of 40,000 population located in scenic mountainous section of Northeast Alabama. Office space and equipment available from physician who wishes to retire. Hill-Burton hospital-nursing home. Expanding industries in top agricultural area. PW-10

General Practitioners—
For city of 25,000 population located in South Alabama within less than 100 miles of the Gulf Coast. Offices available in a medical center complex adjacent to hospital. PW-11

General Practitioner—
For associate practice in city of 35,000 population located in Northeast Alabama. Interest in surgery also desirable. PW-12

General Practitioner-Obstetrician—
Opportunity for physician in city of 15,000-20,000 population located in Southeast Alabama in college town. Interest in surgery also desirable. PW-13

General Practitioner-Surgeon—
For two towns with combined population of approximately 5,000 in West Alabama. Seeking one or more physicians; possibility of four additional physicians needed in the county. Hospital is located in each town and plans are under way for expansion of facilities. Office space available. Nearest city with 50,000 population is 30 miles. PW-14

General Practitioner-Surgeon—
For associate practice in four-man clinic in town of 7,500 population in 25,000 population center in Northwest Alabama. 75-bed accredited hospital. PW-15

Internist—
Excellent opportunity for practice in clinic located in city of 35,000 population adjacent to metropolitan center in North-central Alabama. Opportunity for partnership and to participate in teaching in conjunction with intern and house staff training program at a large hospital. PW-16

Internist—
Opportunity for internist in adjoining cities with

PHYSICIANS WANTED (Continued)

combined population of 40,000 with 60,000 population in the county located in East Alabama. Office space available. Accredited hospital. PW-17

Obstetrician-Gynecologist—

For partnership. Board eligible or Board qualified. In city of 35,000 population located in Northeast Alabama. PW-18

Pediatrician—

Opportunity for one or two physicians in adjoining cities with combined population of 40,000 with 60,000 in the county located in East Alabama. Office space available. Accredited hospital. PW-19

Student Health—

New 75-bed facility to be occupied in late 1968. Present staff of seven full-time physicians. Seeking one additional physician for fall 1967 and two (one as a replacement) for fall 1968. Salary negotiable. Appointments are full time with regular University benefits. PW-20

Locations Wanted

General Practice or Industrial Medicine—

Age 31; University of Miami 1963. Available August 1967. LW-1

General Practice—

Age 29; married; Medical College of Alabama 1962; completing military obligation; seeking location in town of 14,000 population or less. LW-2

Age 26; single; Medical College of Alabama 1966; wishes to establish initial practice, probably in area to qualify for fulfillment of scholarship plan. Available July 1967. LW-3

Age 30; married; Medical College of Alabama 1962; seeking associate practice. Available immediately. LW-4

Age 30; married; Medical College of Virginia 1963; completing military duty. Available July 1967. LW-5

Age 34; University of Tennessee 1964; seeking solo, group, or associate practice. Available immediately. LW-6

Age 27; Baylor University 1966. Available July 1967. LW-7

Age 29; Ohio State University 1964. Available September 1967. LW-8

LOCATIONS WANTED (Continued)

Age 33; Medical College of South Carolina 1962. Available immediately. LW-9

Internal Medicine-Gastroenterology—

Age 37; University of Pennsylvania 1956; Board eligible; seeking group or associate practice. Available September 1967. LW-10

Obstetrics-Gynecology—

Age 53; Northwestern Medical College 1941; Certified American Board; seeking group, industrial, associate, or institutional practice. Available immediately. LW-11

Ophthalmology—

Age 35; Georgetown Medical College 1959; Board eligible; seeking solo, group, industrial, associate, or institutional practice. Available immediately. LW-12

Age 33; University of Texas 1959; seeking solo or associate practice. Available immediately. LW-13

Pediatrics (Non private practice)—

Age 47; University of Toronto 1952. Certified American Board. Available immediately. LW-14

Orthopedics—

Age 33; University of Nebraska 1959; Certified American Board; National Board; seeking solo, group, or associate practice. Available September 1967. LW-15

Pathology—

Age 34; Medical College of Georgia 1962; seeking associate practice. Available July or August 1967. LW-16

Age 40; Albany Medical College 1953; Certified American Board; National Board; seeking solo, group, associate, or director of laboratories. Available immediately. LW-17

Public Health/Administrative Medicine—

Age 62; University of Maryland 1928; Certified American Board. Available September 1967. LW-18

Surgery (Vascular)—

Age 50; New York University 1942; Certified American Board; seeking group practice. Available immediately. LW-19

Surgery—

Age 31; Medical College of Alabama 1961; Board eligible; National Board; seeking associate practice in town of 20,000-80,000 population. Available July 1967. LW-20

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IN BRIEF.

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Precautions: Hypotensive reactions are rare, but use with caution where complications could ensue from a fall in blood pressure, especially in the elderly. Withdrawal symptoms upon discontinuation have been noted in some patients exhibiting drug dependence through chronic overdose. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose; excessive, prolonged use in susceptible patients (alcoholics, ex-addicts, etc.) may result in dependence or habituation. Reduce dosage gradually after prolonged excessive dosage to avoid possible epileptiform seizures. Withdrawal symptoms following abrupt discontinuance are similar to those seen with barbiturates. Caution patients against driving or operating machinery until absence of drowsiness or dizziness is ascertained. Warn patients of possible reduction in alcohol tolerance. Safety for use in pregnancy has not been established.

Not indicated in children under 6 years; absolute dosage for 6- to 12-year-olds not established.

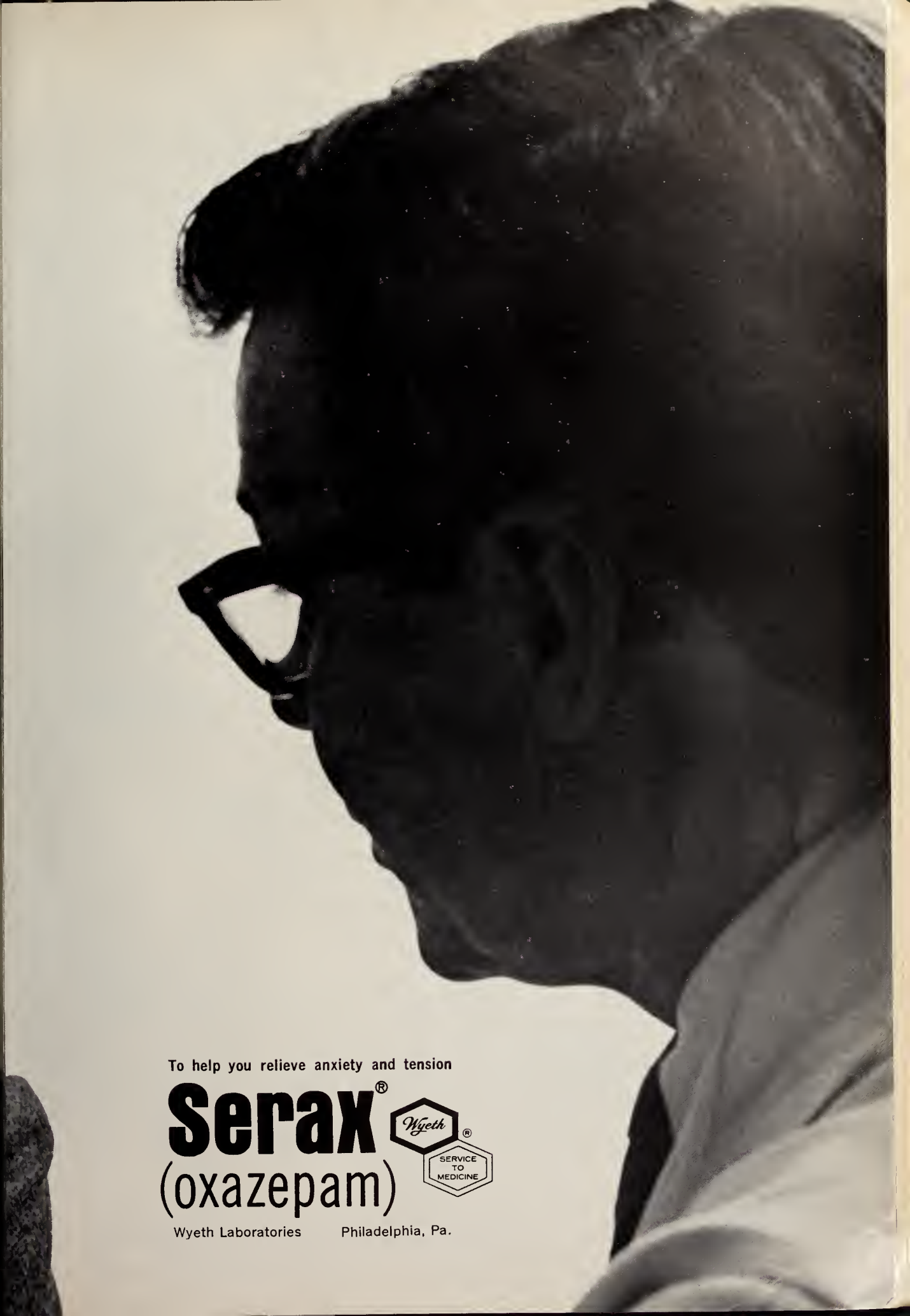
Side Effects: Therapy-interrupting side effects are rare. Transient mild drowsiness is common initially; if persistent, reduce dosage. Dizziness, vertigo and headache have also occurred infrequently; syncope, rarely. Mild paradoxical reactions (excitement, stimulation of affect) are reported in psychiatric patients. Minor diffuse rashes (morbilliform, urticarial and maculopapular) are rare. Nausea, lethargy, edema, slurred speech, tremor and altered libido are rare and generally controllable by dosage reduction. Although rare, leucopenia and hepatic dysfunction including jaundice have been reported during therapy. Periodic blood counts and liver function tests are advised. Ataxia, reported rarely, does not appear related to dose or age.

These side reactions, noted with related compounds, are not yet reported: paradoxical excitation with severe rage reactions, hallucinations, menstrual irregularities, change in EEG pattern, blood dyscrasias (including agranulocytosis), blurred vision, diplopia, incontinence, stupor, disorientation, fever and euphoria.

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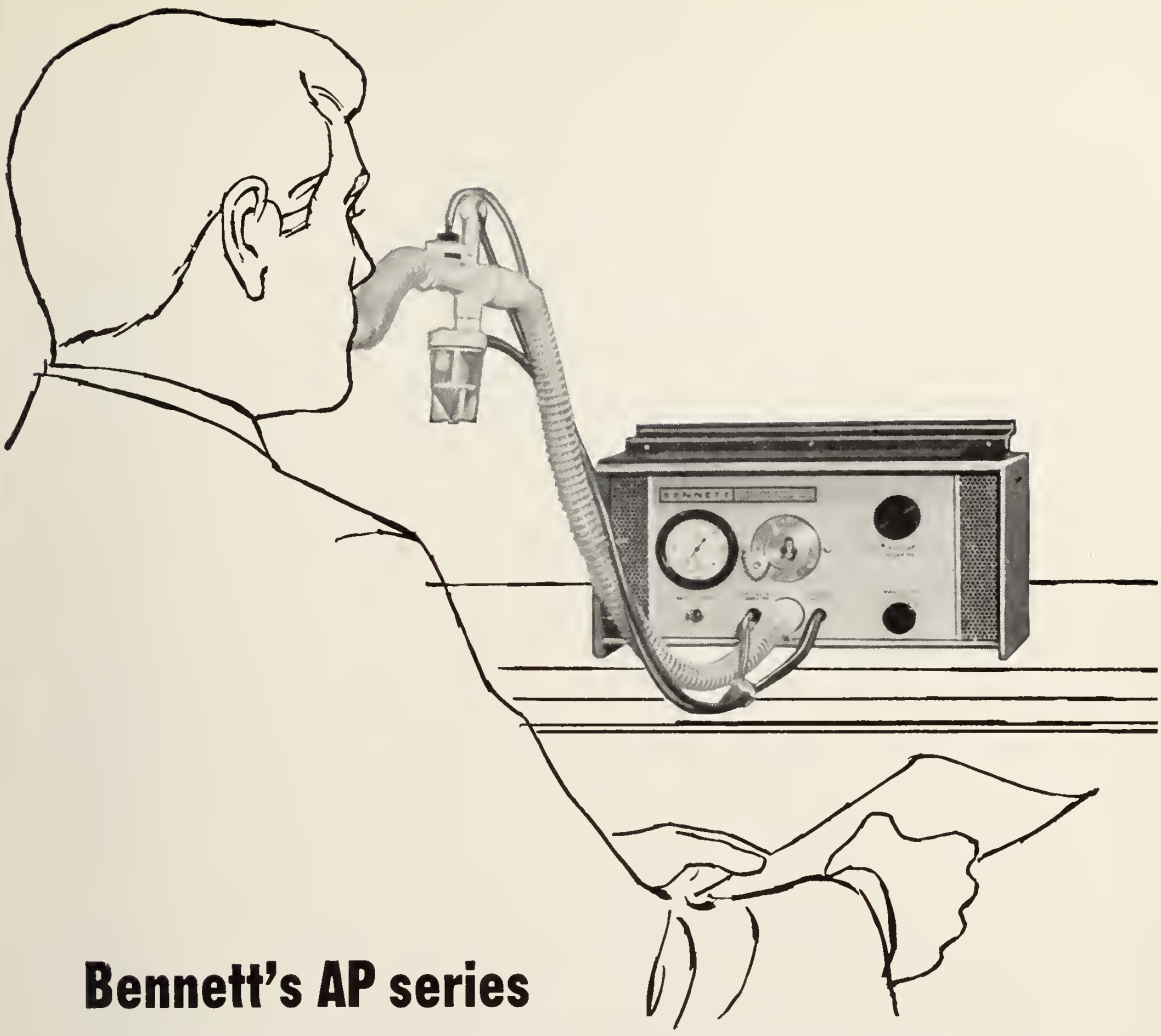
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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy.

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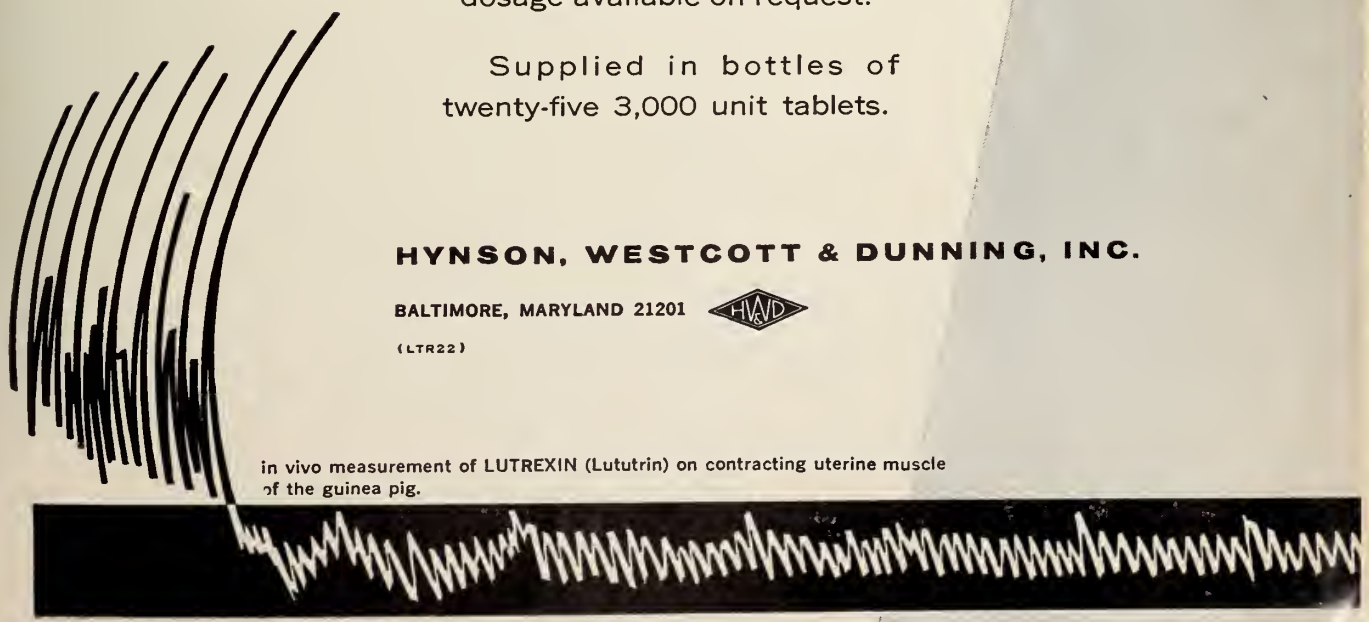
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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • August, 1967 • No. 2

Office of Publication
19 So. Jackson St. Montgomery, Ala. 36104
Subscription Price $5.00 Per Year
$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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President's Page

Recently the Board of Censors approved the establishment of a new standing committee of the Association—the Interspecialty Council. The AMA has had such a committee for sometime and we have learned that other states already have such a committee or are planning to activate one.

We enthusiastically believe that this will enhance the effectiveness of your Association, give further objectivity to it, and add to the overall desired accomplishments.

It is to be composed of a representative from each specialty group in our State, with the chairman to be named by the President. It will be the duties of the Committee, in the main, to determine most of the things that they will consider. Just by way of illustration as has been done by some of the other committees, they may wish to give consideration to uniform claim forms, the Allied Health Professions and Services, relationship of county medical societies to the development of hospital staff programs, the Millis Commission Report, legislation in their particular spheres of activity, and Education for Family Practice. We are sure that as this Committee begins to get down to its work they will become interested in other areas also.

Of primary importance, they should seek to increase and improve their communications with the Headquarters office of our State Association. Nothing but good will come from this for the benefit of all involved. You may not realize it, but effective communication is one of our biggest problems. In a recent discussion with the Executive Director, we explored this to some extent. In spite of the monthly Journal, the weekly Alabama M. D., special mailings, radio and television, we may have to develop other avenues of approach. This writer believes enthusiastically that a well functioning Interspecialty Council will be a step in the right direction.



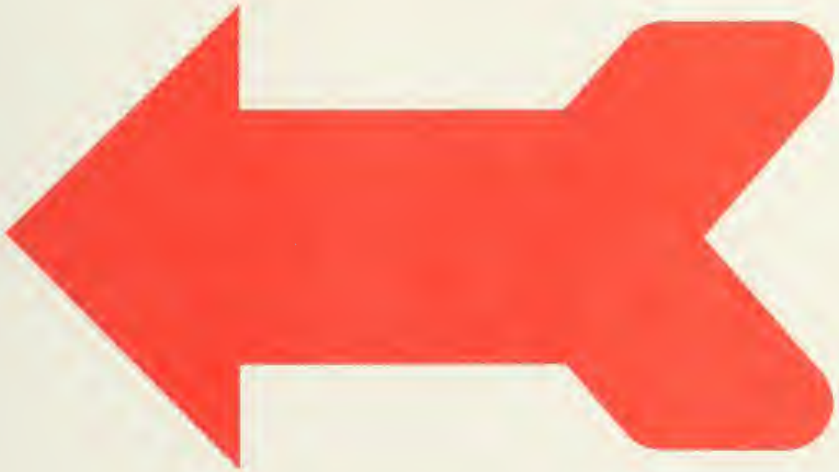
Dr. E. Bryce Robinson, Jr.

The capability of our Headquarters office and its staff to render more service to the physicians of Alabama has never been greater. We have a dedicated and most capable staff, and they are almost daily adding to their usefulness to members of the Association and helping us to do a better job in many areas, especially in improving the health care for all the people of Alabama.

The Headquarters office has new and modern equipment which has greatly increased its production potential. As a result the time required for mailing this Journal has been decreased from two days by four

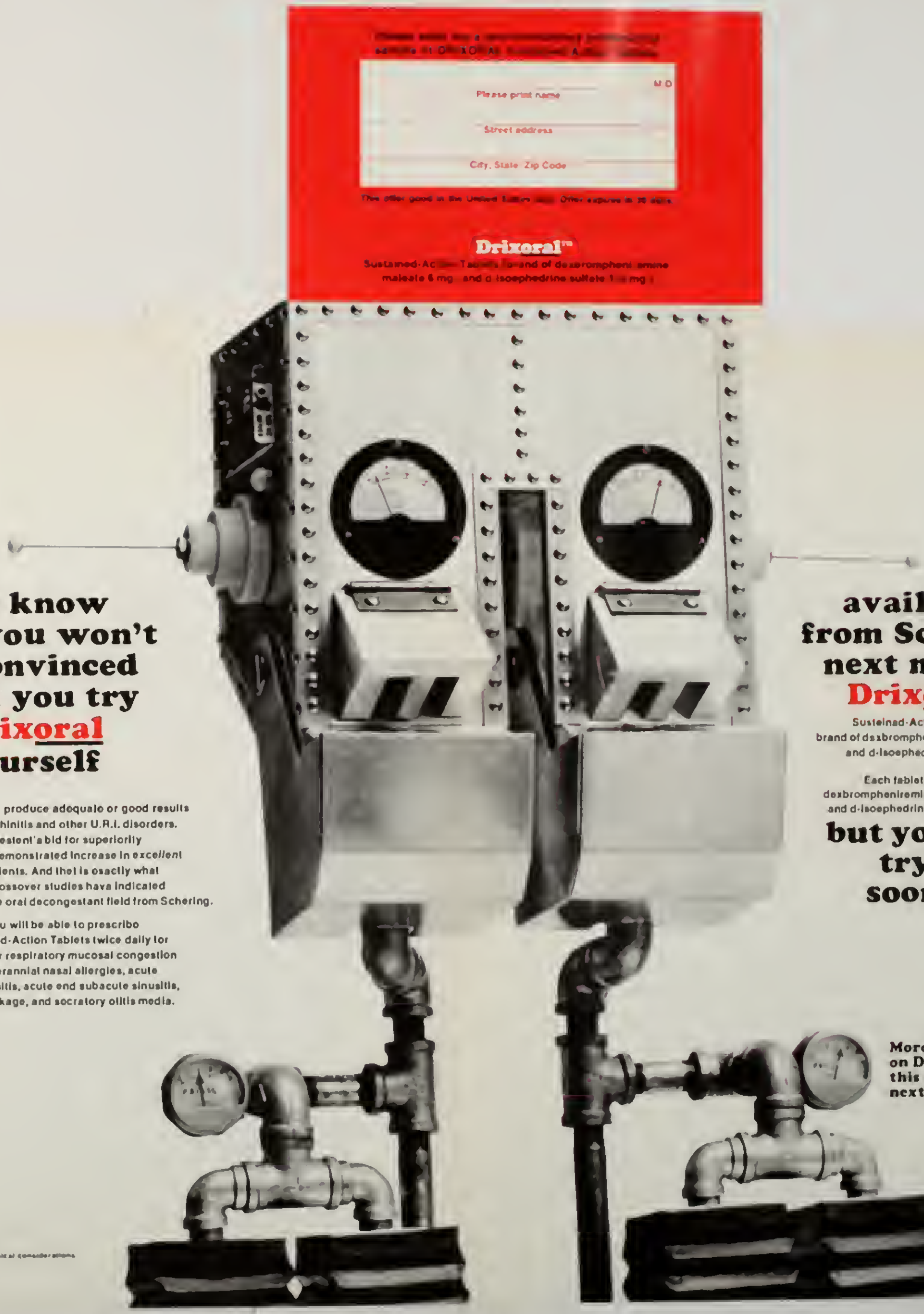
(Continued on Page 119)

Schering introduces Drixoral™



Double-blind and crossover studies[1-3] show superior results with an oral decongestant, but...

See last page of advertisement for clinical considerations.



Schering

we know that you won't be convinced until you try Drixoral yourself

Most oral decongestants produce adequate or good results in most patients with rhinitis and other U.R.I. disorders. An oral decongestant's bid for superiority must be justified by a demonstrated increase in *excellent* results in more patients. And that is exactly what double-blind and crossover studies have indicated about a coming entry into the oral decongestant field from Schering.

Next month, you will be able to prescribe DRIXORAL Sustained-Action Tablets twice daily for 24-hour relief of upper respiratory mucosal congestion in seasonal and perennial nasal allergies, acute rhinitis and rhinosinusitis, acute and subacute sinusitis, eustachian tube blockage, and secretory otitis media.

See last page of advertisement for clinical considerations

available from Schering next month Drixoral™

Sustained-Action Tablets
brand of dexbrompheniramine maleate
and d-isoephedrine sulfate

Each tablet contains
dexbrompheniramine maleate 6 mg.,
and d-isoephedrine sulfate 120 mg.

but you can try it sooner

More details on Drixoral and this mechanical man next month.

see previous page for special pre-introductory sample offer for

New Drixoral™

Sustained-Action Tablets
brand of dexbrompheniramine maleate
and d-isoephedrine sulfate

Each tablet contains dexbrompheniramine maleate 6 mg., and d-isoephedrine sulfate 120 mg.

Clinical considerations: Contraindications—DRIXORAL should not be given to children under 12 years of age. Until animal studies support the safety of this preparation for use during gestation, DRIXORAL should not be administered to pregnant women. *Precautions*—Although isoephedrine causes practically no pressor effect in normotensive individuals, it should be used with caution in patients with hypertension, coronary artery disease and hyperthyroidism. Dexbrompheniramine maleate may cause infrequent and usually mild drowsiness; should this occur, the patient should not engage in mechanical operations that require alertness. *Side effects*—Mild drowsiness has been observed in occasional patients receiving DRIXORAL. Although very infrequent complaints suggestive of sympathomimetic side effects have been noted, possible side effects of sympathomimetic origin include anxiety, tension, restlessness, nervousness, tremor, weakness, insomnia, headache, palpitation, tachycardia, angina, elevation of blood pressure, sweating, mydriasis, anorexia, nausea, vomiting, dizziness, constipation, and dysuria due to vesical sphincter spasm. For more complete details, consult package insert or Schering literature available from your Schering Representative or Medical Services Department, Union, New Jersey 07083.

References:
1. Pullen, F. W. 2nd, and Montgomery, W. W.: Arch. Otolaryng. 77:24, 1963.
2. Frank, D. I.: Curr. Therap. Res. 6:158, 1964.
3. Flerberg, A. A.: Ann. Allergy 22:324, 1964.

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(Continued from Page 116)

people to seven hours by two people. The time required to set the type for the Alabama M. D. was two days; today this can be accomplished in half a day. The cost in making reproductions has been reduced. At the last Annual Meeting in Montgomery in April 1967 the Counsellors and Delegates received the full report of the Association 35 days in advance which enabled them to familiarize themselves with every problem which had arisen. Today our Headquarters office is in a position to offer secretarial, record keeping, addressing, and meeting services to each of the medical specialty groups now operating in Alabama. It is felt that this service can be furnished to these groups more economically than they can do it alone and certainly with much less effort on the part of the members of the various groups. It is planned that the cost of this service will be prorated between the groups based on (1) the volume of work required, and (2) total membership of the groups.

Our Headquarters office can also offer unlimited services along these lines and other lines referred to above to the County Societies when requested. For instance, they can supply speakers on short notice on almost any subject of interest to society memberships. They can develop and coordinate such programs as public relations, legislative liaison, medicine and religion, and countless other subjects which should and do interest a majority of the physicians.

In light of current terminology and definition, each and every member of this Association has one or more specialties. Great things will be expected from the Interspecialty Council as we move into the future.



E. Bryce Robinson, Jr., M. D.,
President, The Medical Association of the State of Alabama



After the picnic even Gramps Was a victim of intestinal cramps

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin,
and protects intestinal mucosa

In elderly patients it is particularly important to stop the diarrhea fast. Parepectolin helps you control diarrhea promptly and gain the patient's confidence until etiology has been determined.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
*Paregoric (equivalent) (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin (2½ grains) 162 mg.
Kaolin (specially purified) (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Adult Dose: One or two tablespoonfuls three times daily.

RORER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

The Woman's Auxiliary

It has been my pleasure this summer to represent your wives at the 44th Annual Convention of the Woman's Auxiliary to the AMA in Atlantic City, N. J., and at the AMPAC National Workshop in Washington, D. C.

The Convention attracted a registration of 1,052 physicians' wives. Mrs. Asher Yaguda, President, presided over the sessions. Serving as delegates from Alabama were Mrs. William G. Thuss, Sr., Birmingham; Mrs. Robert K. Wilson, Sr., Aliceville; Mrs. William Noble, Sr., Ft. Payne; Mrs. E. Bryce Robinson, Birmingham; Mrs. C. N. Matthews, Florala; Mrs. M. Vaun Adams, Mobile; and Mrs. James C. Guin, Jr., Tuscaloosa. Mrs. John M. Chenault, Decatur, was a delegate from the National Board of Directors.

Two young Vietnamese mothers, recently "adopted" by the Auxiliary for their short-term, specialized medical training at the Georgetown University School of Medicine in Washington, D. C., were special guests. The Auxiliary pays part of their living expenses for their three-months training. These are the first two students to be sponsored by the Auxiliary's newly established Vietnamese Student Aid Project.

A highlight of the convention was the AMA-ERF Awards Luncheon. Contributions totaling $384,649 were presented by the Woman's Auxiliary to the AMA Education Research Foundation. It was the 16th consecutive year in which the Auxiliary bettered its own presentation. The 1967 total, which topped the previous year's by nearly $40,000, brought the grand total of the Auxiliary AMA-ERF gift fund to $2,878,432.

At the AMPAC Workshop I became keenly aware of the impact the PAC movement is making and the importance of physicians and their wives supporting this program.

An old recipe for rabbit stew starts out by saying: "First, catch a rabbit. . ." The rabbit of membership must be caught before the stew can be put on the burner. Therefore, the first priority for 1967-1968 is to build ALA-



Delegates to the 44th Annual Convention of the Woman's Auxiliary to the AMA Atlantic City, N. J., June 18-22, 1967 (Shelburne Hotel) (Left to right) Mrs. James C. Guin, Jr., President and Chairman of Delegates; Mrs. William G. Thuss, Sr., Past National President; Mrs. Robert K. Wilson, Sr., President-elect; Mrs. William Noble; Mrs. M. Vaun Adams; Mrs. John M. Chenault, Delegate from the National Board of Directors; and Mrs. E. Bryce Robinson.

PAC membership among doctors and their wives.

The second priority is organization. Every person can be used in politics, but it is important to get the right person into the right job if we are to have a strong political action committee.

The third priority is political education. Nothing can foul up a campaign more than the efforts of a well meaning, but undisciplined volunteer group. For this reason volunteers must be trained.

And fourth, we must begin our candidate supporting activities by gathering political intelligence, assessing political situations, and organizing at the Congressional district level.

It was pointed out by Dr. James H. Sammons, AMPAC Board of Directors, that within the PAC movement, we have won the respect of both national parties, the gratitude of legislators in both parties, and

our files are bulging with appreciative letters from candidates from whom political action committees have rendered campaign services. However, we have just begun to pick up momentum, and our potential is not yet in sight. Doctors and their wives should join the PAC and become partners in politics, dedicated to the task of preserving what is left of the physician's right to practice medicine as he believes best.

Most sincerely,

Kay Guin

Mrs. James C. Guin, Jr.
President

Athletic Trainers Are Commended

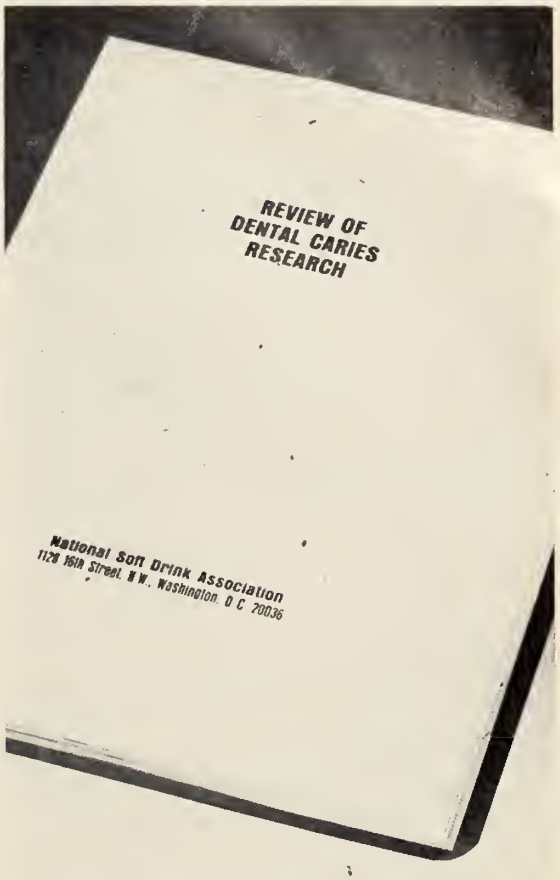
The importance of the athletic trainer was given additional recognition by the American Medical Association at its recent annual convention.

The AMA commended the National Athletic Trainers Association for its efforts to upgrade professional standards, and urge medical societies and individual physicians to help advance the professional goals of the NATA.

The AMA recognized "the importance of the role of the professionally prepared athletic trainer as a part of the team responsible for the health care of the athlete" in a report adopted at the convention.

The report approved by the AMA House of Delegates was submitted by the AMA's Committee on the Medical Aspects of Sports, through the Board of Trustees. Donald B. Slocum, M. D., Eugene, Ore., is chairman of the committee.

William E. Newell, Lafayette, Ind., Purdue University's head athletic trainer, is executive secretary of the National Athletic Trainers Association.



16-page report reviews dental caries research from 1880 to date

A clear, concise compendium of research into the causes of dental decay. This report summarizes and quotes from scientific studies including the latest research with antibiotics and radioisotopes.
The extensive bibliography is itself a valuable reference guide.
Write for your complimentary copy today.

Alabama Soft Drink Association
P.O. Box 2181, Montgomery, Ala. 36103



Editorial COMMENT

Accolade for Jobs Well Done

The Medical Association of the State of Alabama can well be proud of the high esteem in which its three delegates to the American Medical Association are held by their contemporaries.

It is unusual for the AMA to meet without one of Alabama's representatives occupying a position of high importance.

At the 1966 Clinical Convention in Las Vegas, Dr. John M. Chenault was chairman of the reference committee to which was assigned the difficult problem of the AMA Members Group Disability Insurance Program. It was the groundwork laid by this reference committee which helped to bring into sharp focus the issues in dispute at the 1967 convention.

At Atlantic City in June Dr. E. Bryce Robinson, Jr., was chairman of the reference committee to which was assigned all legislative matters. It is to his credit, (and for this he has received commendation from other AMA delegates) that his entire committee report was adopted with minimal discussion and without a dissenting vote.

Also, at the 1967 convention, Dr. M. Vaun Adams was a member of the Committee on Resolutions. He and his fellow committeemen worked long into one night to receive, analyze and prepare late resolutions for consideration by the House of Delegates.

Many gallons of midnight oil are burned by members of AMA committees in the performance of their assigned responsibilities and service on these panels entails considerable sacrifice. It is a compliment to Alabama's delegation that they are so often chosen for these arduous tasks. For their faithful performance of duty they merit the gratitude of every AMA member.

Title XIX Laden With Problems

While it is too early to comment definitively on the full impact of the transference of responsibility for administering Title XIX to the State Board of Health, it is well to sound a clarion warning to all members of this Association that the Governor's assignment carries with it awesome problems.

This Journal firmly holds that Title XIX is basically a medical care program which one day will provide some service to a massive percentage of Alabama residents. Coupled with Title XVIII, which benefits the over-65 age group, Title XIX could well bring benefits to almost half our population.

Unquestionably the biggest problem posed by transferral of authority for Title XIX is getting it adequately financed. It is safe to assume that no less than ten million dollars must be raised locally for matching with Federal funds to institute and continue a

program of comprehensive health care for the indigent and medically indigent of this State.

At least fifty million dollars both State and Federal will be required to provide the five basic services required by law: (1) Inpatient hospital care; (2) outpatient hospital and clinic care; (3) physician services; (4) nursing home care; and (5) laboratory service. To this must be added prescription drugs, which probably will cost an additional ten million dollars. There is no way to estimate the cost of optometric services which the Governor decreed should be a part of the program from the start.

Obviously the physicians of this state, who have sought and won the right to administer this all-embracing health program, must now devote many hours in collaboration with the other providers in developing a Title XIX plan which will adequately and efficiently serve the people for whom it is intended without creating undue hardship for those who must foot the bill.

Decision . . . In The Wrong Hands

The decision in Missouri to perform an abortion is not in the hands of the members of the medical profession but is lodged in the law written by a group of elected public officials, (some farmers, some lawyers, some business men, some professional politicians). That is wrong.

The decision should be a medical one. The result of the decision can have a tremendous effect on the physical and psychological well-being of the pregnant woman involved.

In Missouri we live under many antiquated laws written by non-medical zealots who have confused medical necessity with their own interpretation of the moral values of their day. Today pregnancy resulting from rape or incest must go on to its physical conclusion: birth. Medical science does not have the right to solve the psychological problem of the pregnant woman. She, in the fulfillment of her own logic and reason, must resort to the quack, the untrained, or the village midwife.

It is believed that in Italy more than 40,000 women die each year as a result of about a million illegal abortions being performed. These figures, coming from a country where church membership is almost equal to the population and where, we believe, church edicts are strictly obeyed leave us astounded and appalled.

Closer home we may be even more shocked if we could learn of the number of illegal operations performed annually and the number of deaths following as a result of these operations.

Theologians of the Dark Ages (and political leaders following their leadership) may have been convinced of the validity of their conclusions regarding abortion. Modern, enlightened, civilized man however should no longer let the matter be decided by an obsolete law perhaps written 100 years ago.

The decision is a medical one—not theological—not political. The time has come for the medical profession to make all the decisions in this field, decisions that may (and often do) affect the physical and mental welfare of the patient involved. Now the patient's future is decided not by logic, not by reason, but by an obsolete law written by some who (rather than make enlightened progress) would fall back on the old bromide, "It was good enough for mother, and it's good enough for me."

Well it isn't. It should not be. Missouri could be the first State in the Union to move into the twentieth century. WHY DOESN'T IT?

Reprinted from the **St. Louis County Medical Society Bulletin.**

There are 35,700* undetected diabetics in Alabama

Most of these are probably among patients over 40; the overweight; relatives of diabetics, and mothers of large babies. By the time polyphagia, polyuria, polydipsia, pruritus or other overt symptoms of diabetes appear, damage may have been done that could have been minimized. DEXTROSTIX® gives you a reliable blood-glucose estimate in 60 seconds.

Why Wait?



*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. 80:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.

AMES COMPANY, Division Miles Laboratories, Inc., Elkhart, Indiana 46514 428R67

Ames

A Loud Voice From the Grass Roots

The House of Delegates of the American Medical Association, at its 1967 Annual Convention in Atlantic City, affirmed after lengthy debate a position already taken by the Medical Association of the State of Alabama that the AMA Members Group Disability Insurance Program should be continued with the same premium-benefit structure. In effect, this action was in obedience to the loudest voice from physicians in the grass roots heard in many a day. It is unfortunate that the dispute over the Group Disability Insurance Program appeared to be clouded in personality clashes and that the question of whether the plan is fiscally sound over a long period of time was lost in the debate.

AMA delegates and association leaders, as well as physicians-subscribers to the program, were bombarded with an avalanche of written material from the offices of Mr. Charles O. Finley and Associates, administrator of the present program, and from the executive offices of the AMA. Other bombastic material came from insurance companies which were favored by one faction or the other. Much criticism has resulted from the controversy and it would appear on the surface that the rank and file of AMA members have risen up to overrule its leadership, which seemed bent on rewriting the insurance program for another five-year term at higher premium charges and revised benefit schedules.

Mr. Finley was a shadowy figure throughout the debate and the fact that he has a vested financial interest in the outcome warranted that his every statement should have been scrutinized most carefully. On the other hand, his contention that he represented a carrier with one billion dollars in assets which was willing to continue the program at the same premium-benefit level made it difficult for delegates to understand why higher premium should have been advocated.

When the question was finally resolved the House of Delegates had voted to adopt the report of a reference committee which said that the insurance carrier should guarantee benefits and premiums for a period of at least five years in order to insure stability to the program. The House then proceeded to adopt the following guidelines:

The contract should provide ample assurance that disability claimants will be treated equitably and justly. It should also assure the continuation of a sound program under the supervision of the Board of Trustees.

Promotional literature should be approved in advance by the Board of Trustees or its designee. Such literature may be distributed in the name of the carrier, the administrator, or the Board of Trustees or its designee. All measures within the bounds of dignity and ethics should be utilized to promote the program.

A continuous review of the entire program should be maintained. The insured and other members of the AMA should be made aware that such continuing review may reveal in the future the necessity for a revision of the program at the end of the five-year period.

Information regarding the operation of the program, its financial aspects and the processing of claims should be available to the Board of Trustees for its review at any time.

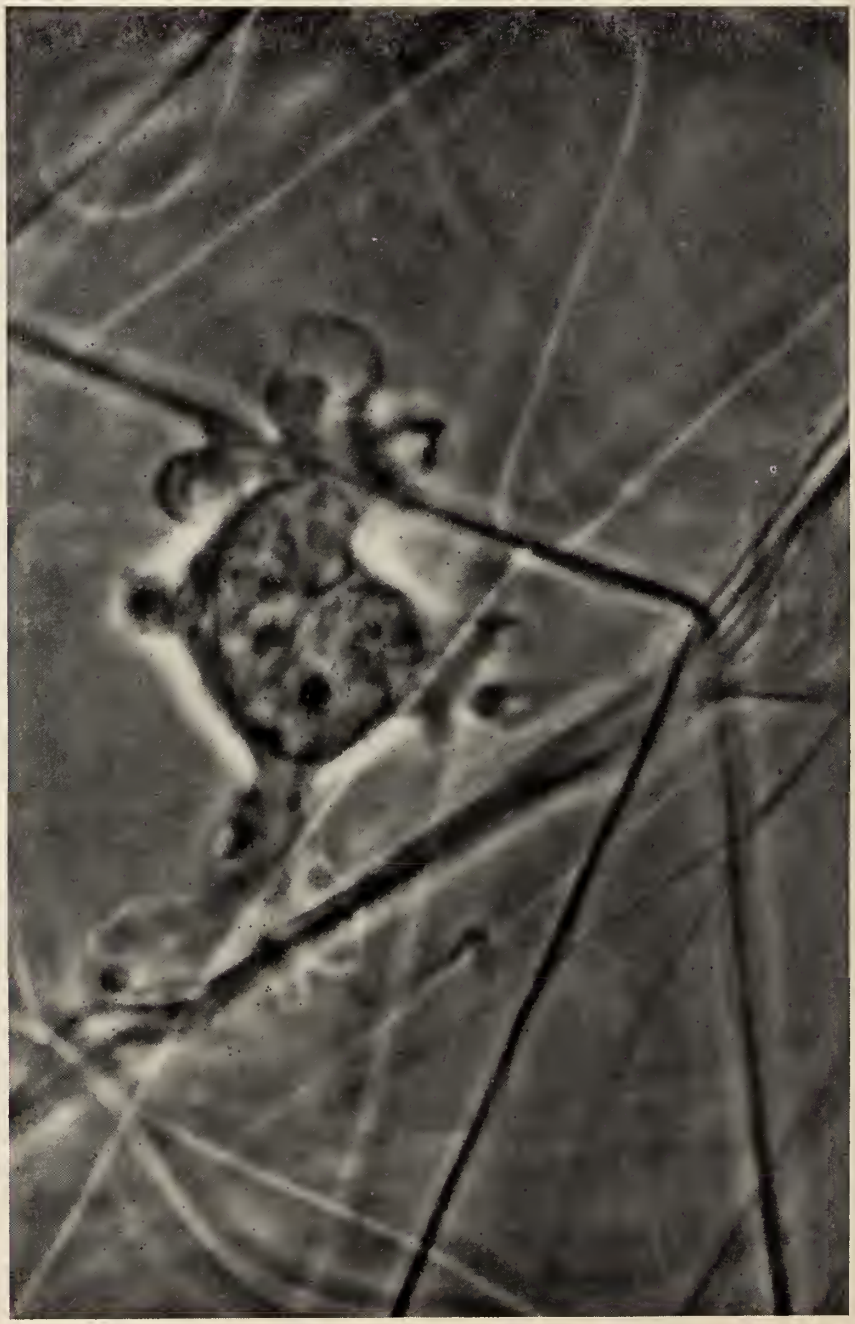
The AMA Disability Insurance Review Committee should be continued and should provide a mechanism for claims review.

INFLAMMATION:
A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

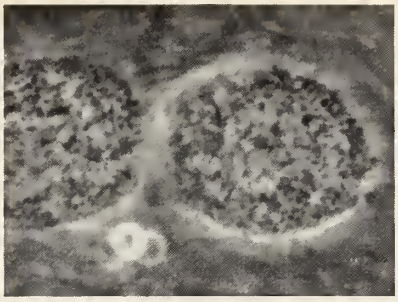


Visual evidence of how corticosteroids influence the inflammatory reaction

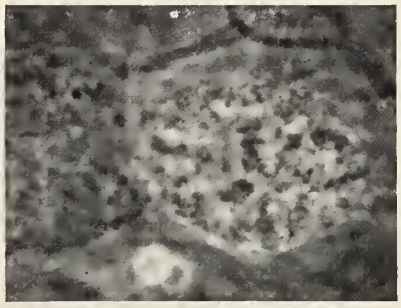
Working with phase-contrast cinemicrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



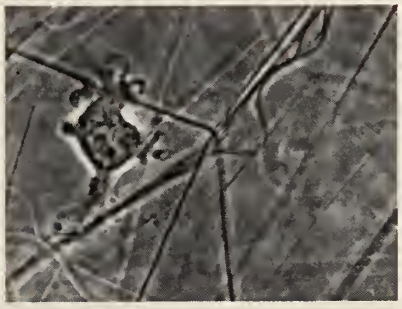
Phase-contrast microscopy showing mast cell before injury.



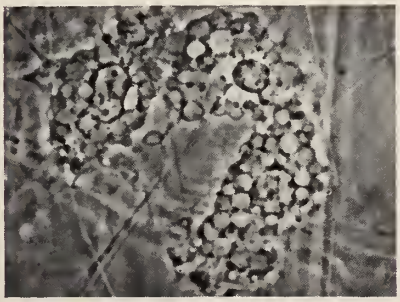
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid —Synalar (fluocinolone acetonide)— the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.



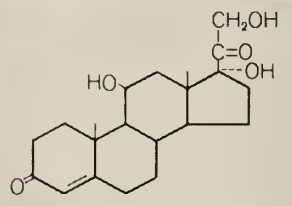
In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

**A New View of Corticosteroid Action in Inflammatory Dermatoses,* a film based on this study, is now available from your Syntex representative.

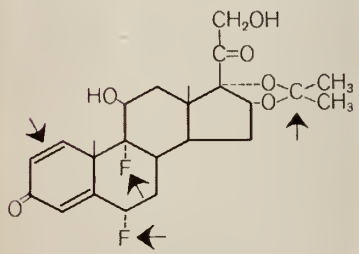
See last page for contraindications, precautions, side effects and dosage.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more cortiscosteroid. And it can often do it more effectively.



Hydrocortisone

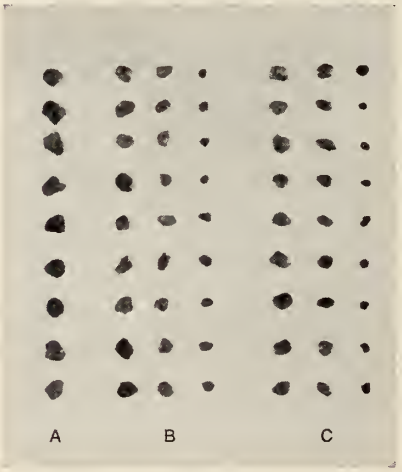


Fluocinolone Acetonide (Synalar)

- *a double bond between carbons 1 and 2*
- *fluorine substitutions at* both *the 6-α, and the 9-α positions*
- *the addition of the acetonide at the 16-α, 17-α positions, thus providing one of the most potent topical corticosteroids available.*

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY[1-4] is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B – injected with 1, 2 and 4 mg. of hydrocortisone – show progressively smaller thymuses as does Group C – injected with fluocinolone acetonide – but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY[1-4] also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes. CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. PRECAUTIONS: Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. SIDE EFFECTS: Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

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For inflammatory dermatoses... by any measure a topical corticosteroid of choice

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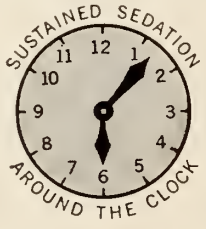
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Letter To The Editor

Editor, The Journal

The following letter recently published in the *AMA News* expresses my opinion exactly. Please re-publish it in the Journal of the Medical Association of the State of Alabama.

J. P. Mudd, M. D.,
Jackson, Alabama

Polling of AMA Members Sought

• . . . I have been increasingly disturbed by the inability to get both sides of a question from the AMA. . . .**Minority opinion** [should] be entered into the official newsletters as well as that of the majority. It may very well be that the majority is wrong and will be swayed by rational, intelligent arguments of the other side . . .

I strongly object to the paternalistic approach . . . in the past few years. I have been bombarded with one sided "facts" and opinions on many issues including social security for doctors, and medicare.

I would like, in the future, to have the AMA membership (not just the House of Delegates) polled on issues such as these which mean so much to physicians, and on which I and other physicians have strong opinions. Surely it would not bankrupt our organization to send out letters with self-addressed stamped post cards so that individual members could ballot. This would be truly democratic, and I would be willing to have an increase in dues to cover the cost . . .

I would also insist that the total votes received be tabulated and printed in *The AMA News* . . .

It is a pity that such totalitarian suppression of the loyal opposition has so long been tolerated. Many people who scream about the government shoving policies down our throats (as they certainly have) are equally as guilty . . .

LEONARD H. GREENE, M. D.

Minneapolis, Minn.

Vitamin D Supplement Needed For Nonfat Dry Milk

The American Academy of Pediatrics has strongly recommended that infants and children who receive nonfat dry milk as part of their diet be given a vitamin supplement containing vitamin D "to insure consumption of 400 I. U. (International Units) of the vitamin per day."

In a statement appearing in the July issue of *Pediatrics*, the AAP's official journal, the Academy's Committee on Nutrition points out that nonfat dry milk is presently not fortified with vitamin D, "because this was not included in the definition of the product (Standard of Indentity) established by Congress in 1944."

The Committee, in calling for the vitamin D supplement, emphasizes that nonfat dry milk, because of the increased price of fluid milk, is today consistently used more frequently in the United States "for preparing milk for home use for children, and possibly for infants."

In 1965, for example, consumer sales of nonfat dry milk added up to about five per cent of the total national consumption of milk.

"This total reflects an increase in consumption of almost 70 per cent over the past ten years," the Committee stresses.

The statement warns that the absence of vitamin D in certain major sources of milk produced for and consumed by the public "invites the reappearance of rickets."

For example, the Committee statement reveals that addition of vitamin D to fluid milk in Canada was only recently permitted, and is "not common practice even now."

"As a consequence, rickets continues to appear (in Canada), and constitutes a continuing and significant cause of morbidity in infancy and childhood," the statement emphasizes.

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The fast-disintegrating uncoated tablet gives relief in 15 minutes

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Potassium Iodide 195 mg.
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Phenobarbital, Caution: May be habit forming . . . 21 mg.
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Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

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One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

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"Welcome To The Club" . . .

Back a few years ago, maybe 25 years ago, a trumpet player named Harry James (best remembered perhaps for being married to Betty Grable) made a mint of money with a recording entitled "I've Heard That Song Before."

We couldn't help thinking of that tune as we read an editorial in the June issue of the Massachusetts Physician printed under the headline, "Medical Care and Public Welfare."

The point was made that there was a great deal of federal concern these days about providing medical and social services to the needy people of this country, and the problem was that the feds seemed to feel that one agency could provide both services.

The editorial writer then turned to a familiar subject—Title XIX, or Medicaid, to make his point. Read it, please:

"The Medicaid law provides that each state designate an administrative agency. Unfortunately most states, including Massachusetts, have designated their public welfare departments. It is time for the law makers and those responsible for formulating policy on public assistance to realize that administration of Medicaid (Title XIX) by the public health agency is more likely to assure a higher quality medical care program. A good medical care program and public welfare administration are totally incompatible. *MDs should exert their influence to change the administrative agency for Medicaid in Massachusetts to an agency that has medical knowledge and skills in medical administration.*" (Italics ours.)

Lest you think that is an isolated case, read on, dear Doctor, read on. The following is an excerpt from a resolution adopted by the Tennessee Medical Association at its recent annual session:

"Be it resolved . . . that the administration of Title XIX be placed under the direction of the Tennessee Department of Public Health or a designated agency that is headed by a doctor of medicine."

Welcome, Massachusetts; glad to have you aboard, Tennessee.



The I. Q. — Use and Abuse

C. J. Rosecrans, Ph. D.*

Since the concept of the intelligence quotient (I. Q.) was initiated by Terman shortly after the turn of the century, this term has come into more and more usage until, today, there is almost no one who has not heard or used the term. Unfortunately, its popularity has not always been accompanied by the proper knowledge and interpretation of the term or, more especially, of the score.

The term "I. Q." was originally developed to indicate a ratio between a child's chronological age (the child's actual age in months) and his "mental age" (the performance abilities he is able to demonstrate on specific tasks). This ratio between the chronological age (C. A.) and the mental age (M. A.) yields a quotient in straightforward arithmetic fashion. Thus, a child having a chronological age of five years who is able to accomplish a number of tasks which half of the five year old children do would have a ratio of 5 divided by 5 yielding a quotient of 1 which we would multiply by one hundred to remove the decimal and which yields an I. Q. of 100, average intelligence. It should be borne in mind that this quotient represents a *score* and has nothing inherently "magical" in it. It simply informs us that a child's mental development is occurring at about the same rate as his chronological development. Further, it should be noted that any child has numerous "ages." We might list a few: chronological, mental, emotional, social, physiological, organic, and possibly others.

From the above, we can see that it is possible for most of the ages to remain fairly consistent one with the other, but it is also possible for one or a combination of the ages to be in advance or retarded when compared with other ages. Thus, when mental age is far advanced over chronological age, we have a bright or superior child, commonly referred to as "gifted." When mental age development is slightly retarded in comparison with chronological age, we have what might be termed the "slow learner" or if very slow in development, the mentally retarded child.

It is especially important to distinguish between the *I. Q.* and *intelligence.* In common usage among some parents, teachers, and even among some professional persons, these terms come to be used interchangeably. The important difference is: *intelligence represents the native potential mental development of an individual and an I. Q. represents only an inferred estimate (by testing) of that native potential.* Thus, we can see where it would be possible for an I. Q. *score* to reflect estimates that are not accurate for the individual's native intelligence. It is much more possible for an I. Q. score which is relatively low to be an inaccurate estimate than an I. Q. score which is higher. This is logical inasmuch as lack of motivation, illness, hostility toward the examiner or the test, organic injury, nutritional deficiencies, and many other factors may operate to produce a lower I. Q. (test) score. On the other hand, nothing but good performance can produce a higher score. Thus, because of the many contributing factors which may alter the derivation of an I. Q. score, it should only be interpreted by an experienced individual with a proper amount of caution and then only with the well-validated assumption that the I. Q. has been obtained in a well controlled testing situation and represents adequate behavioral samples.

It is not infrequent that a difference of two to five I. Q. "points" is cited as a major distinction between two children. It is not an exaggeration to imagine a parent feeling smug over his child's I. Q. of 100 when a

* Associate Professor of Clinical Psychology, Department of Psychiatry, University of Alabama Medical Center, Birmingham.

neighboring child's I. Q. has been rumored to be 97. Actually, both of these scores fall in what is called the average range. The so-called average range extends from I. Q. 90 to I. Q. 110 and includes approximately 50 per cent of all individuals. Further, we should expect to find as many individuals *below* I. Q. 100 as above it.

Unfortunately, it is also not a rarity to find a teacher interpreting a lower I. Q. score from a group test given to the whole class as conclusive "proof" of the child's ability or lack thereof. This, in spite of the child's lack of interest in taking the test and demonstrated intelligence in the form of original but "naughty" behavior in the classroom. Thus, a clinic may find a *bright* "poor student" who has been considered and accepted as "dull" by the teacher on the basis of a group test I. Q. score. A child with a low I. Q. score and poor school performance who demonstrates non-academic originality and creative skills may be reflecting *academic* skill retardation *not intellectual* retardation. In essence, *not learning* as contrasted with not having the *capacity* to learn.

"Worshipful" attitudes toward the I. Q. as being an absolute measure are based on shaky ground. The clinician frequently sees a child whose native intellect (intelligence) may be in the retarded range and yet the social age may have been developed much beyond the intellectual potential (mental age). More frequently, a child who is considered to be retarded in all areas because of a low I. Q. score is placed in situations which further result in a lack of proper social development and other skills such as manual dexterity.

Properly used, the I. Q. can be a great asset for estimating the child's present performance capacities and future abilities requiring academic and other kinds of skills. Improperly used, it can be a source of great emotional and over-emotional concern that attributes mystical and "sacred cow" atti-

(Continued on Page 139)

Tandearil®
oxyphenbutazone

Tandearil in Painful Shoulder

Therapeutic Effects: Stiffness and pain may diminish within 2 days, and full mobility may be restored within a week. These effects are obtained with oxyphenbutazone alone or combined with physiotherapy or local hormonal injections. The drug is usually well tolerated and does not affect pituitary-adrenal function or immune response.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Painful Shoulder: 600 mg. daily in divided doses for 2 to 3 days; 300 mg. daily thereafter. Usual duration of therapy: 2 to 7 days.

Availability: Tablets of 100 mg. 6562-VI(B)R

For complete details, please refer to full prescribing information.

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helps painful shoulders move again



3 out of 4 painful shoulder patients responded well

84.2% of 127 patients

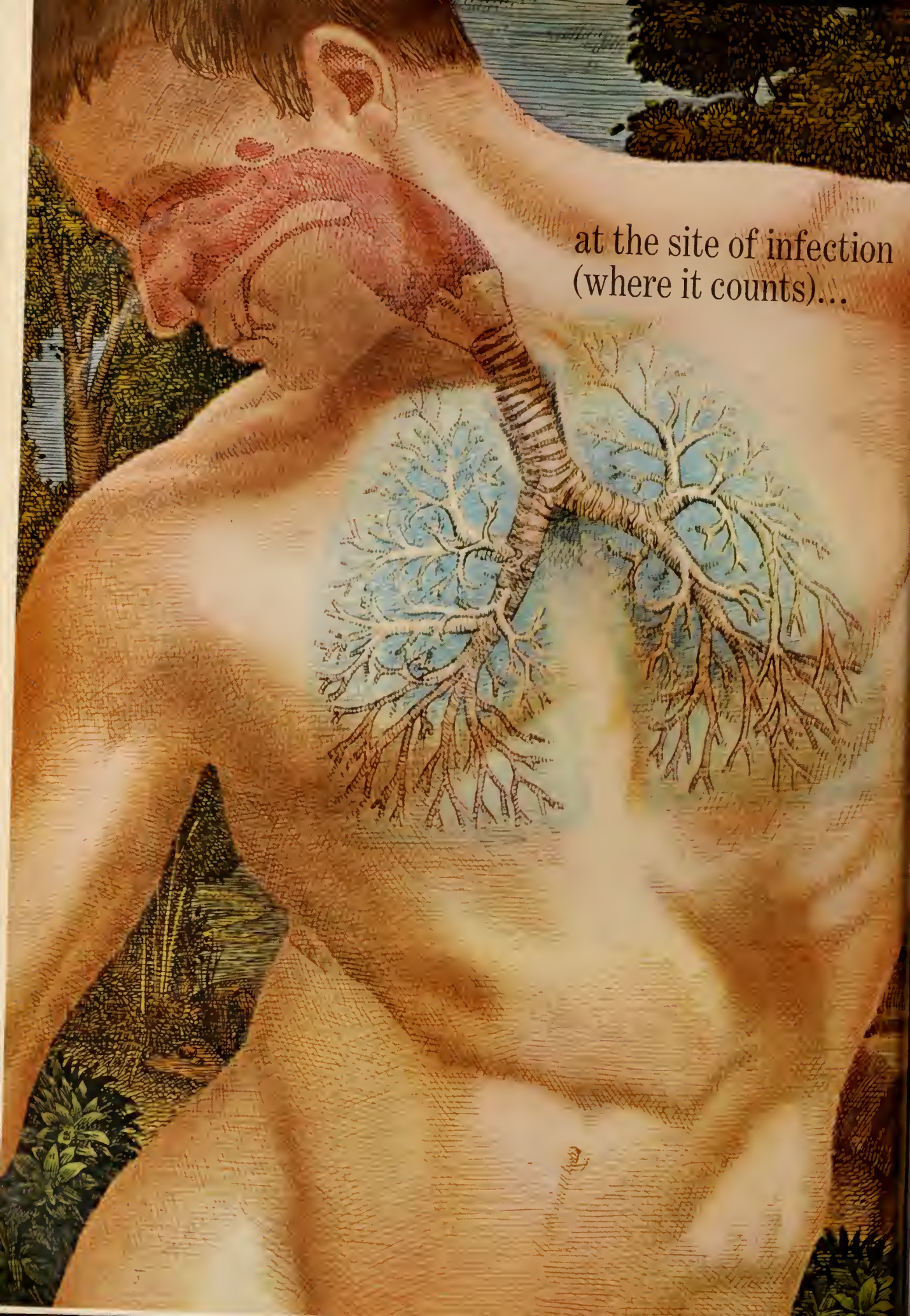
81% of 48 patients

Please see adjoining page for brief prescribing summary.

TA-5094PC

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Rosenbaum, E E., and Schwarz, G R Northwest Med. 61:927, 1962.


at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Now available:
New! Ready-mixed Ilosone Liquid 125! (Contains erythromycin estolate equivalent to 125 mg. erythromycin base per 5-cc. teaspoonful.)

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Ilosone®
Erythromycin Estolate

Lilly

(See next page for prescribing information.)

Ilosone®/the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have also been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Adverse Reactions: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have developed in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly, usually within forty-eight hours, if the drug is readministered to sensitive patients. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeare be definitely related to use of the drug, laboratory findings w characterized by increased direct-reacting bilirubin, eleva alkaline phosphatase levels, negative or weakly positive ceph flocculation and thymol turbidity tests, elevated serum gluta oxalacetic transaminase levels, peripheral eosinophilia, and n mal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has been reported in other patients taking prolonged courses of medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months, a patients with rheumatic fever have taken prophylactic doses 0.5 Gm. daily for two years without difficulty. In one group 144 patients who received the drug daily for two years, no ja dice was noted. It was of interest that members of six of th patients' families, who were not taking the drug, had episo of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels w determined in a group of fifty-four adults and children who t 250 mg. of Ilosone daily for an average of sixteen months rheumatic fever prophylaxis. The results were compared w those of a similar group of forty-four patients who received p icillin. There were no cases of jaundice in either group. Elevati of SGPT and serum alkaline phosphatase levels during the cou of treatment was observed in one patient treated with Ilos and in two patients treated with penicillin. Seven other patie in the group receiving Ilosone and four others in the penicil group showed elevations in one of the tests at some time dur administration of the drugs.

Very satisfactory therapeutic results, without toxicity, w reported in 102 pediatric patients who received short-term (t day) courses of Ilosone in the treatment of streptococcus inf tions. Results of liver function tests in these patients we comparable to those in a similar control group who had receiv penicillin.

Gastro-intestinal disturbances not associated with hepatic e fects are observed in a small proportion of individuals as a res of a local stimulating effect of the medication on the alimenta tract; however, the normal intestinal gram-negative bacter flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the u of erythromycin, there have been occasional reports of urticari skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®, Ilosone Liquid 125, Ilosone, 125, for Or Suspension, Ilosone Drops, Ilosone Chewable Tablets.

For infants and for children under twenty-five pounds of bod weight, the usual dosage is 5 mg. per pound every six hours; f children twenty-five to fifty pounds, 125 mg. every six hour (Tablets Ilosone Chewable should be chewed or crushed an swallowed with water.)

For adults and for children over fifty pounds, the usual dosa of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromyci therapy should be considered.

In the treatment of syphilis, the recommended total dosage 20 to 30 Gm. given in divided doses for a period of ten to fifte days. Close follow-up of the patient is necessary since erythr mycin drugs have not had adequate evaluation in all stages o syphilis. Examinations of spinal fluid are recommended as par of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days ar recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examinatio before receiving antibiotics, and monthly serologic tests shoul be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg (equivalent to base), in bottles of 24 and 100.

Ilosone Liquid 125, Oral Suspension, U.S.P., 125 mg. (equivalen to base) per 5-cc. teaspoonful, in 60-cc. and pint-size package

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalen to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size package

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc.-siz packages, with dropper calibrated at 25 and 50 mg.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base) in bottles of 50. [032767

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69, 196
2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 196
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 1960.

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

7008

(Continued from Page 134)

tudes toward it which the mere score itself can never sustain.

Here are points to remember:

1. An I. Q. is not intelligence; it represents only a score derived from the ratio between chronological age and mental age.

2. The I. Q. score is not an indication of measured intelligence itself but only an inference of native intelligence, derived from performance on standardized tasks from which estimates of actual ability are made.

3. A lower I. Q. score should always be interpreted more cautiously than a higher score, because it may indicate environmental factors which would invalidate maximal performance on the test.

4. I. Q. scores themselves may vary from test to test and the score itself has no meaning unless the test is known, the individual's attitude about it is known, the experience of the examiner is known and appropriate assumptions about the potential are drawn from the performed items.

5. An I. Q. score should never be used *alone* in assessing or determining capacities, abilities, or success in training.

Appropriately used, the I. Q. has always been an invaluable asset in helping to evaluate intellectual capabilities and potential. Too frequently, however, it is taken as the sole evaluator of intelligence and endowed with meaning beyond its original intent or purpose. Ultimately, then, the I. Q. can be only as meaningful as the person using it is able to properly evaluate it in the context of the person's abilities.

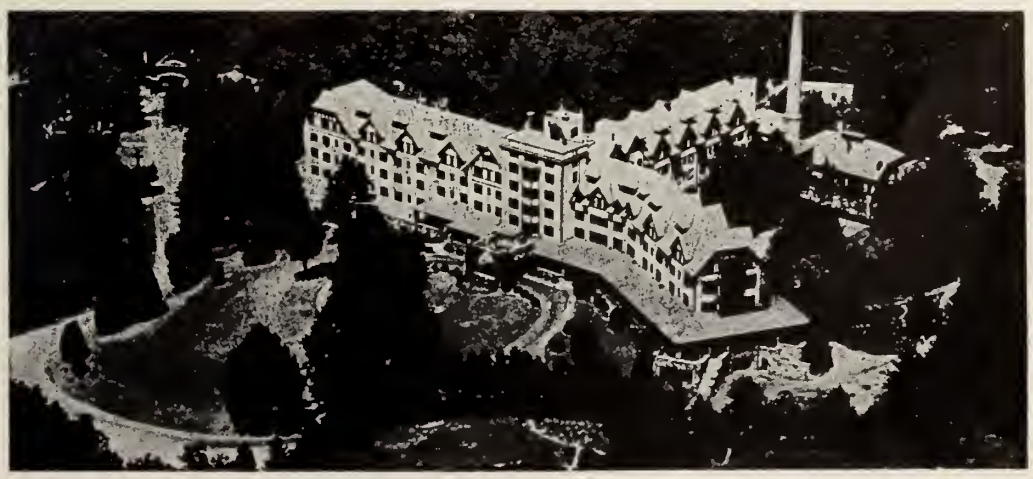
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THE JOURNAL

of

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Published Under the Auspices of the Board of Censors

Volume 37 August, 1967 No. 2

Clinical Respirator Patient Relations

Donald S. Tysinger, Jr., M. D.

PART I

I. Physiology

To understand respirators and apply them effectively to the patient, one must know certain things about normal breathing. Respirators are mechanical means of trying to maintain breathing.

The lung is an elastic organ that goes from the size of one's fists when collapsed to completely filling the thoracic cage at full inspiration. At the normal resting chest cage position the lungs are held partially expanded by the boney chest cage and the diaphragm. The tubes that go to the alveoli then will expand from this fist sized collapsed lung to complete expansion at full inspiration. The cause of this elasticity must be understood.

Figure *I* is a diagrammatic sketch of the lungs basic moving and elastic parts. To go over this diagram, *A* is the force of the chest cage and diaphragm as they move. The movement outward of the chest cage and downward of the diaphragm is due to active muscle contraction and is an expanding force on inspiration. On expiration in the normal chest, gravitational forces, torsion on cartilages and bending of ribs causes this force to be a passive but positive collapsing force. Expiration can, under certain circumstances also be an active muscular collapsing force. This particular force is somewhat slow in coming into play after a deep inspiration.

Area *B* is the alveolar area. Here we have the elastic force of the alveolus itself which tends continually to collapse the alveolus. In the diagram of Force *B*, the extra line is a diagrammatic representation of the dynamic state of the alveolar surfactant. This state of surfactant is the fluid lining of the alveolus with a cohesive property to collapse the alveolus due to the changing surface tensions from inspiration to collapse. On inspiration as the alveolus is stretched, surface area increases and increases tension reaching 40 dynes/sq. cm., therefore, producing greater and greater increase force to collapse the alveolus. Thus, as the inspiration gets deeper, this is a greater resistant force that must be expanded by Force *A*. On expiration this becomes a positive collapsing force. As the surface area is reduced with reduction in size of the alveolus, the surface tension goes down to about 5 dynes per square cm., retarding the likelihood of alveolar collapse at the end of expiration.

Next is force *C*, which is a combination of elastic and muscular forces. The *C* force is brought into play as the bronchus increases

Dr. Tysinger is the Medical Director of the Alabama Chronic Respiratory Disease Project. This is the third of a series.

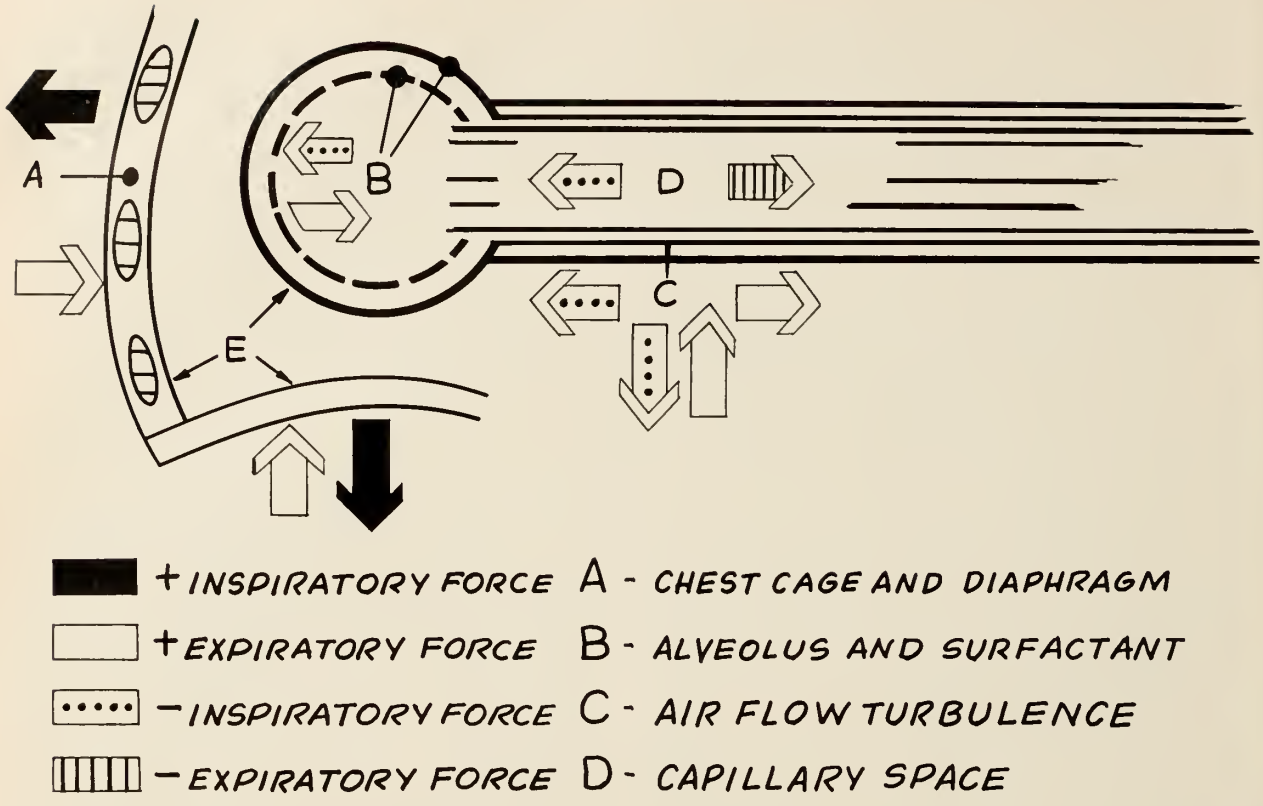


Figure 1

in diameter and is elongated by force *A* on inspiration. Force *D* is the actual flow of air between the mouth and the alveolus and the resistance that is produced thereby within the airway. This is a continually small force on inspiration as the bronchi are dilating, elongating and fanning out. On expiration force *C* becomes a positive collapsing force and since the bronchial tubes are getting smaller and shorter, force *D* increases slightly on expiration, retarding collapse.

Force *E* is really not a force but a negative pressure existing in the alveolar capillary area. It is maintained at a more negative pressure than alveolar pressure, because of the pull of the chest cage and diaphragm in one direction and the elastic tissues of the alveolus and bronchus in the other direction. This negative force to the capillaries keeps them open on inspiration. On expiration elastic qualities of *B* and *C* are such that they collapse more rapidly than does force *A* so that during expiration the negativity of *E* is still great keeping capillaries open during expiration and thus supporting blood flow. Understanding these forces makes it easier to understand what happens in the individual who develops lung disease.

If there is an intraluminal obstruction of the bronchial tube such as secretions, edema of the wall, or spasm of the muscle, then greater pressures are needed to maintain air

flow, because the smaller obstructed lumen increases the turbulent resistance of the air flow *D*. *D* is dependent on the difference in pressure produce in the alveolus from that at the mouth. On expiration obstructed bronchial tubes get smaller than usual as they collapse and shorten, markedly increasing resistance to collapse by increasing force *D*. This is the type thing that happens in restrictive, obstructive and fibrotic disease. In disease states the tubes can narrow to the point as in asthmatics that terrific pressures are built up. Force *A* must actually push the air out by force on expiration due to the resistance overcoming the elastic collapse potential of the alveolus. This builds up a positive pressure in area *E* and retards blood flow during expiration. This requires greater right heart pressure to maintain circulation.

The positive pressure of expiration in obstructive disease is also developed against the bronchus and will collapse the bronchus in front of the obstruction with trapping of air in the alveolus.

In the emphysematous type condition in which the elastic force *B* is impaired, then there is less elastic force in this area to keep a negative pressure around the alveolar capillaries at *E*. On inspiration a less negative force develops in area *E*. A slight positive pressure develops as the chest wall and abdominal wall musculature force air back out of the alveolar areas. There is a decrease in blood flow, slight on inspiration, but marked on expiration, requiring again increases of right heart pressure to maintain circulation.

To review we are interested in air flow in and out of the alveolus and the perfusion of blood to the alveolus. When the *A* forces are required for both inspiration and expiration, there is a change in the pressure in area *E* which does retard blood flow on expiration over and above normal, and possibly also on inspiration. Air flows from ambient pressures around the patient at the mouth and nose through the bronchial tubes to the aveolus as subambient pressures are produced in the alveolus. The resistance to flow is dependent on the pressure difference at the two ends and the speed or rate at which this is developed times the diameter and length of the tubing. As the tubing is narrowed by a fourth, then resistance goes up or increases sixteen times. Normally the pressures are low in the range of plus 3 and minus 3 cm. of water and the change is slow. As the chest cage begins to move out and the diaphragm begins to move down, the first lower than ambient pressure is produced in the interstitial space and in the alveoli next to the pleura. The pressure is first force *A* against force *B*, with increased negative pressure in area *E* with increased capillary flow. As the peripheral alveoli expand due to the pull of force *A*, negative pressure develops in the alveolus. The air in the bronchial tubes begins to move toward the alveolus. When the peripheral alveoli are fully expanded, then the bronchial tubes begin to stretch, dilate and fan-out, allowing the alveoli in the middle portions and finally in the hilus to fill. The negative pressure is propagated towards the mouth with an in flow of air until the chest in the inspiratory state has filled and the pressure has returned to zero.

Normally inspiration is half as long as expiration. If we have a patient breathing 20 times a minute then inspiration would be one second and expiration would be approximately two seconds. If we are breathing 15 times a minute this is four seconds a breath or 1 1/3 seconds inspiration and 2 2/3 seconds expiration. The pressure difference built up in normal breathing is roughly minus 3 to plus 3 cm. of water. This develops probably at a rate of about 1 cm. of water per 1/3 of a second and causes rather even and slow flow rates. Turbulence can be produced by increasing the pressure difference from mouth to alveolus. Man can build up extremely high pressures on breathing up to 100 mmHg. in fairly short order both on inspiration and on expiration. If we can produce this sort of pressure rapidly then by just changes in pressure we can produce turbulence sufficient to cause wheezing.

Turbulence can be produced by elongating the tubes such as breathing at a higher inspiratory level and also turbulence can be produced by narrowing the tubes by secretion, edema or broncho spasm. As long as the rate of change of pressure in the alveolus in relation to the mouth is slow enough and the diameter is satisfactorily large, breathing can be accomplished without too much turbulence.

The individual with bronchospasm, tracheo bronchial secretions, or edema follows a natural urge to breathe deeper and faster, when he feels in trouble, he begins to produce flow rate problems. He (1) breathes faster, and develops greater pressure difference in the alveolus and develops them faster. (2) The bronchial tubes are narrower and somewhat longer. As he tires and as the muscular exercise continues necessary to carry on this type of breathing, he feels fatigued as the runner who has run his distance and this perpetuates rapid and deeper respiratory attempts. A perpetual cycle develops to increase the rate and depth of breathing, to remove CO_2, and take up oxygen. This is a normal physiologic reaction to the normal exercising individual. This normal response must be unlearned by the obstructed patient. When these patients are in trouble their biggest problem is high flow rates and turbulent obstruction. They are trying to breathe deeper and faster through smaller tubes with much larger pressures produced at a much more rapid rate. The only way an individual of this type can increase his ventilation effectively and lower the work of breathing is to learn at those times to breathe as slowly as possible and as deeply as possible, and make the pressure changes in the alveolus as slowly as possible, keeping air flow laminar and keeping turbulent resistance to a minimum. If the patient can learn to breathe deeply and slowly with the stomach and diaphragm, usually within a few minutes he will begin to breathe easier. It is analogous to trying to fill a pop bottle with water from a faucet that is turned wide open. The water bounces around the neck, all over the sides, but due to the turbulence of the rapid flow, very little gets into the bottle. The quickest way to fill the bottle is with a very low flow rate not enough to obstruct the opening in the bottle neck.

Next, let us define compliance. Compliance as used in lung disease, means elasticity. The more elastic a lung, the less the pressure that must be developed to cause a flow of air from mouth to alveolus or vice versa. As elasticity is lost and the chest cage gets rigid it takes much higher pressure to produce the same volume exchange. The normal lung has good compliance and requires little pressure to ventilate. The emphysematous lung and the obstructive lung has poorer compliance. Compliance is measured as air flow per cm. of water pressure.

The Circulatory Effects of Breathing: During inspiration as negative pressures are produced in the chest in opposition to the pressures in the abdomen, extremities, and head, there is an increased or augmented blood flow into the thorax and pulmonary capillary bed slowing flow to the left heart and body. On expiration the opposite occurs with retardation of blood flow to the chest cage and increase in left heart output to the body. This will be referred to more specifically when the different forms of respirators and their usage is explained.

PART II

A. GENERAL:

Respirators are a means of maintaining respiration. There is no physiologic respirator. All respirators alter pulmonary physiology as presented in Part I, one way or another. The three main problems in respirators are first pressure flow rate turbulence problems, second pulmonary segmental ventilation problems (interpulmonary mixing problems), third ventilation perfusion problems in getting blood and air together in the same alveoli. In this section we are interested in the way the respirator causes air flow in and out of the lungs and the drawbacks of each method. Respirators are basically used for four different purposes:

1. They are used to maintain respiration in the patient not breathing.

2. They are used to assist respiration in the patient who is not breathing effectively (to assist respiration). In these two types it is necessary in order to determine effectiveness to check arterial PO_2, PCO_2, and pH frequently. These are the only measures that will tell the adequacy of the resuscitation effort. We strive to maintain pH at 7.4, PCO_2 around 40 mmHg, and PO_2 80 mmHg. or better, which is 95-100 per cent saturation of the hemoglobin. Respirators should not be used for this purpose if the laboratory facilities available do not allow for these studies 24 hours a day, seven days a week. The eight to five, five day a week laboratory is a contraindication to the hospital attempting to undertake such treatment. A laboratory technician who does not understand what he is doing, is in a hurry, and upset over extra work is likely to make mistakes. False information due to hurried, inaccurate laboratory work, is fatal.

3. They are used with the patient with chronic obstructive lung disease. Here respirators are used, first, in acute respiratory acidosis (as in Part II) and second, to deliver medications of many types to the diseased area of the lung, if possible. Here flow rates are the most important. The normal individual can build up flow rates of 5 liters per second, or higher, on forced expiration. Turbulence produced is the limiting factor. Inspiratory rates can almost double this at maximum effort. In normal breathing flow rates run only 500 to 600 ml. per second. The individual with chronic obstructive lung disease is having a flow rate problem with turbulence, wheezing, etc., at these normal flow rates. To add increase in pressure and increase in flow rates can only help to increase turbulent breathing difficulty. This patient actually needs a reduction in turbulence producing factors, tube length, tube diameter, flow rates and pressure differences. The machine used must accomplish these, or it will not work.

4. They are used with the patient with acute pulmonary edema.

B. The patient not breathing: We will start with those patients who are not breathing and see how each type of respirator works. We should obtain an arterial pH, PO_2 and PCO_2 before starting. After the patient has been on the respirator one half hour, we re-check the arterial pH, PO_2 and PCO_2. We continue ventilating in another half hour and we again re-check and continue until we have the pH, PO_2 and PCO_2 normal. Then adjust to maintain this level. (The Physician is urged at this point to reread Oxygen Patient Relations and CO_2 Patient Relations, in the June and July issues). When the patient is maintaining arterial pH, PO_2 and PCO_2, we check the venous pH and PCO_2. Then we can usually maintain the patient with venous pH and PCO_2 about every six hours. (A well trained nurse can do arterial punctures as well as a physician). We should also check sodium, potassium and chloride, and BUN to make sure we are

keeping the patient in good electrolyte balance. Increased pressures in breathing stimulate anti-diuretic hormone output by the pituitary. With some types of respirators this plus changes in blood flow patterns increase the production of aldosterone. Patients on respirators should have fluid intake and output watched, a good urine output should be maintained. Over-hydration, isotonic, hypertonic, or hypotonic can occur, an occasional total serum protein and A/G ratio, hemoglobin and hematocrit help check on this. They go down with hypervolemia and up with hypovolemia.

Where respirators are being continually used, all tubing should be changed and completely sterilized every twelve to twenty four hours, (pseudomons and aero-bacter infections are a problem in prolonged ventilation). The care of tracheotomies and endo-tracheal tubes will not be discussed, but sterile techniques should be used.

In the use of respirators the rather even steady volume being artificially ventilated does tend to cause primarily ventilation of the same segments of the lungs with each breath. This leads to atelectasis due to the collection of secretions and surfactant atelectasis in the poorly ventilated areas. To prevent this mechanical sighing is necessary. Some respirators have a sighing mechanism built in. The best method of sighing (completely distending) the lungs is by using a handbag respirator to completely distend the lungs once or twice every fifteen minutes. In the pressure cycle respirators, this can be accomplished by holding the pressure on and letting it rise to a maximum two or three times every fifteen minutes. The different respirators produce different physiological results.

First, time cycle (tank type respirator). With this type respirator the chest cage is pulled out and the diaphragm and viscera move downward by the negative pressure produced around the body except the head as tank pressure is made subambient. This causes development of sub-ambient pressures in the alveolus, producing air inflow to the lungs, in the same manner as normal breathing. Here the ventilation is to the more normal lung structures and is much poorer to areas of obstructive disease, because pressure difference is not high enough. It is possible to control the pH, PCO_2 and PO_2 while at the same time ventilating only parts of the lungs, not ventilating obstructed and diseased areas. In the tank type respirator this same negative pressure that causes expansion of the lungs also tends to retard blood flow from the extremities and the abdomen, changing the venous return pattern to one of rapid return on expiration with a tendency to pooling on inspiration. This is not true for the head which is out in the ambient air and maintains a normal circulatory pattern to the brain. When using this type respirator blood sampling is rather difficult. The volumes exchanged are uncertain. The patient is usually quite apprehensive and requires sedation until he feels safe and secure in the respirator. Nursing duties are also difficult. The negative pressure changes over the entire body also interferes with the hydrostatic osmotic and tissue pressures that have to do with fluid exchanges at the capillary level, particularly in the extremities. In generalized obstructive disease the tank type respirators are very poor. No respirator should be used that does not humidify the air going into the patient 100 per cent.

Second, the volume cycle respirator works primarily by delivering or compressing a given volume of air. This is usually monitored on the expiratory side. In delivering this amount of air the lower the pressure developed, the more air delivered. As pressure increases compression of air rather than delivery is the rule. If the PO_2, PCO_2 and pH are maintained the patient is being ventilated satisfactorily.

Third, comments on air delivery also apply to pressure cycle respirators. With this type respirator in the apneic patient, air pushed into the lungs must build up a positive pressure in the bronchi and in the alveoli and physically push the diaphragm down and

the chest cage out. In doing so the negativity of area *E* now becomes compressed to a positive force caught between the pressure developed in the alveolus at *B* pushing against the chest cage and diaphragm *A*. Marked collapse of the pulmonary capillary bed occurs during the inspiratory phase with a retard of blood flow causing an increased right ventrical pressure to maintain circulation during inspiration. The pressure developed by the right ventricle during the inspiratory phase requires sufficient increase in pressure to force blood through the capillaries despite the pressures developed by the respirator. This causes increased right ventricular strain and increased pulmonary artery pressures. Pressures can get quite high with this type of breathing, due to turbulence. Respirators are usually set at a rate of 15 per minute (1 1/3 second inspiration, 2 2/3 second expiration) delivering volumes in the neighborhood of 800 to 1000 cc. This amounts to about 500 to 800 cc.s per second, a rather low flow rate and this is the reason for the success of the volume cycle respirator. Though pressures do get high, they are low flow rate machines. This type of respirator in the apneic patient gives the strongest stimulus to anti-diuretic hormone excretion. In the patient with obstructive disease, particularly generalized, low flow rates improve ventilation despite the pressures developed due to obstruction. This type ventilator demands an air tight seal with the endotracheal tube or with tracheotomy. This is also quite upsetting to the patient. The patient must follow the respirator and therefore be sedated.

Fourth, pressure cycle respirators come in several varieties. The average machine has an initial opening flow rate of about 100 liters a minute, or double the average flow rates (in the neighborhood of 1.6 to 1.7 liters per second). This markedly increases the likelihood of turbulence with the respirator. It must push out the chest cage wall as does the volume respirator. Some pressure cycled machines are flow rate controllable. Where flow rates are controllable if the initial flow is cut to about 30 to 35 liters per minute, then they will match the flow rates of the volume cycle respirator and will deliver well at cycling pressures. If turbulence is a problem, then reducing flow rates or pressures does help in increasing volume flow. By increasing pressure but maintaining low flow rates, the patient can be as easily or possibly better ventilated than with the volume cycle respirators. As a rule the pressure cycle respirators are better in their ability to deliver humidity to the patient than the volume cycle or timed cycle respirators. Where there is no hemorrhage, a slight negative pressure during expiration will tend to augment cardiac output and can help in counteracting shock, except in the obstructed patient where negative pressure increases trapping.

C. Assisted Ventilation: In the patient with assisted ventilation, the basic operation of the respirators is the same. With the timed cycle and the volume cycle respirators the patient must be sedated so he will be breathing exactly with the respirator. If he does not, he may be producing high negative pressures by inspiratory efforts when the machine is in the expiratory phase. If this occurs, there is a possibility of slight pulmonary edema due to the difference in osmotic and hydrostatic pressure as opposed to tissue pressure and alveolar negative pressure. Also, the patient may breathe out when the respirator is trying to push air in compressing air with insufficient ventilation. As the patient 'fights' the respirator, in this manner it is frequently necessary to sedate the patient or use a curare like drug to paralyze the patient. This shifts the patient from Class II to an apneic (Class I) patient.

The pressure cycled respirator is patient following. The patient must produce enough negative pressure to turn the machine on (Usually 1 cm. H_2O). Here the patient breathes as he does normally. As he produces a negative pressure at the mouth (1 cm. water) then the respirator turns on. He continues to breathe in and alveolar pressure remains sub-ambient. The mouth pressure be-

gins to rise depending on the flow rate of the machine. If the machine is not flow rate controlled then air flow at 1.7 liters per second, much faster than the patient's ordinary flow rate, and with an increasing mouth pressure the continuing negative alveolar pressure causes a great increase in turbulence, due to pressure differences and high flow rates. This may cause the patient to fight the respirator. A decrease in flow rate can match the increase in pressure and maintain a laminar flow, giving the advantages of the volume cycle respirator, but being patient following and most effective. Where flow rates can be controlled, especially in the patient with obstructive lung disease, most areas of the lungs can be adequately ventilated with the proper setting of pressures and flow rates.

The pressure cycle flow rate controllable respirator is the only respirator that can be completely adjusted to the patient's needs. Rarely is it necessary to sedate the patient after he understands what is being done and what he should do. After proper flow rates and pressures have been adjusted with this type respirator the biggest problem is keeping the patient from hyperventilating and developing respiratory alkalosis. In extremely ill confused individuals, it is necessary at times to paralyze the patient with a curare like drug to maintain ventilation. (This reverts the patient to Class 1).

D. Treatment of Lung Diseases: In the patient with chronic respiratory disease, volume cycle respirators and timed cycled respirators are useless and further discussion is not necessary. They are not treatment machines. We are now treating diseased lungs that have narrowed airways, edema, bronchospasm, secretions, infection, etc. We are using the machines for short periods, at frequent intervals to deliver medications. A pressure cycled respirator with a flow rate twice normal is obviously going to be ineffective with the diseased lung that is already in trouble with normal flow rates. By doubling the flow rate and increasing the pressure we are only compounding turbulence which cannot ventilate the diseased areas. They can only be effective to the extent that the medication delivered to the normal portions of the lungs causes sufficient irritation and coughing to cause cleaning of diseased lungs. With the flow rate controlled machines air containing medication can be delivered into diseased areas despite the increase in pressure by controlling the flow rate and keeping turbulence to a minimum. We will not go into humidity, nebulization or medication in this article.

E. Acute Pulmonary Edema: Finally, the use of respirators in acute edema. In this situation the difficulty *is too great* an output by the right ventricle in comparison to the output of the left ventricle. Pressure cycle respirators here can be a great help, in that during inspiration satisfactory positive pressures can be produced to retard right heart output. By the use of retard caps on expiration on the exhalation valve of the respirator, positive pressure can be maintained on expiration also. In this usage the respirator is used to control through inspiratory and expiratory pressures the right heart output instead of having to resort to tourniquets on the extremity, in blood letting, etc. This is most effective. It should not be used beyond the point that pulmonary edema has cleared, for it does cut down on cardiac output and can be shock producing, but can be reinstituted at any time pulmonary edema reappears.

The physiology of the respirator and what it can do has been presented. There are great differences in respirators and how, why and where they should be used. Those who say any respirator will work equally well show their lack of understanding of respirators. By understanding these basic principles of air flow into and out of the lung, of turbulence and of the physiologic changes made by their methods of producing air flow, the correct respirator can be chosen for the situation to produce the best results.

(To find out how various respirators accomplish these procedures, we suggest you consult the salesman of the various type respirators.)

Laser Light Tests To Be Conducted For Effects on Cancer

The National Cancer Institute, one of the National Institutes of Health, using laser equipment developed by the U. S. Army, will conduct research with high energy light beams to study their effects upon cancer.

The term "laser" is derived from "light amplification by stimulated emission of radiation."

The laser instrument designed by the U. S. Army Missile Command at Redstone Arsenal, Alabama, is undergoing modifications while being installed in a cancer research area at the National Institutes of Health, the Public Health Service's main research center located at Bethesda, Maryland. The device was developed by the Army in response to a request from the National Cancer Institute following more than a year's cooperative study by the Missile Command's laser experts and Institute scientists.

The earlier experimentation carried on at Redstone Arsenal involved exposure of both internal and external malignant growths in laboratory animals to pulses of infrared radiation from high energy lasers developed by the Missile Command. The Experiments proved that the radiation could destroy some cancer cells under certain circumstances.

The National Cancer Institute proposes to use the laser instrument in a program of experimental work on laboratory animals. The results may indicate whether laser could be used for treatment of malignant tumors in humans. While many of the results thus far of laser irradiation upon tissue remain poorly understood, the experimental findings are sufficiently significant to justify further animal experimentations and refinements in laser instrumentation.

Dr. Kenneth M. Endicott is Director of the National Cancer Institute and Major General John G. Zierdt is Commanding General of the Missile Command. Dr. Alfred S. Ketcham, Chief, Surgery Branch, and Dr. Robert C. Hoye, surgeon, are the National Cancer Institute scientists in charge of the research, assisted by Mr. Grant Riggle, Biomedical Engineering and Instrumentation Branch, Division of Research Services, NIH, and Mr. William Hawkins, Electrical Engineer, Redstone Arsenal, Huntsville, Alabama. Mr. William B. McKnight and Mr. James R. Dearman, both engineers of the Army's Missile Command, designed the laser device.

Report on AMA-ANA Conference Now Available

A report of the third national conference of physicians and professional nurses held Feb. 23-25, 1967 in Coronado, Calif., is now available for distribution.

Entitled "The Sick Person Needs . . .", the report includes copies of speeches, general impressions on group productivity by the nurse and physician speakers, general observations on group participation by the two social scientists and a summary of the participants' evaluation of the Conference.

Sponsored by the AMA and the ANA the third conference further explored the many questions raised relative to planning effective and realistic patient care at the initial conference held in 1964 which established a foundation for professional collaboration on patient care.

The conference report can be obtained by writing to: Committee on Nursing, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610. Copies are $1.50 each. Copies of the report of the first national conference "Medical and Nursing Practice in a Changing World" and the second national conference "Nurse-Physician Collaboration Toward Improved Patient Care" for professional nurses and physicians are also available at $1.50 per copy.

Some Characteristics Of A Specific Perceptual-Motor Disability-Dyslexia

Charles L. Shedd, Ph. D.

Birmingham, Alabama

Compulsory public education, increased educational competition, improved educational competence, acceptance of the concept of individual variability, these and other less apparent factors, have brought into focus language learning difficulties long recognized by some scholars, teachers and medical men. For over 70 years, researchers and practitioners have been aware of and concerned with a special disability in learning to read ascribable to neurological dysfunction, perhaps, genetic in origin. (Daniels, 1962)

Some of those concerned with this problem have concentrated on systemization of reading instruction in the schools, others upon practical approaches to reading problems of individual students, still others on the diagnostic and therapeutic aspects. It is scarcely remarkable with this diversity of aim and approach that variation in evaluative procedures, consequential results and descriptive terminology should accrue. The employment, however, of new concepts and different terminology to cover some of the same aspects of the problem has produced a condition where scarcely anyone knows what anyone else is talking about.

In way of illustration we find the following terms being used to describe all or some of the characteristics which today we subsume under the rubric of dyslexia: *Analfabetica partialis, congenital dyslexia, reduced reading ability, alexia, strephosymbolia, word blindness, constitutional dyslexia, psychic blindness, specific language disability, symbolic confusion, severe learning disability.*

Much of the disagreement and criticism within and between areas of investigation is more terminological than real. We find, for example, some individuals reacting negatively to the word *dyslexia* which they feel should be used to denote loss of reading skill in an adult rather than failure to acquire such skill in childhood. Others react because the term has overtones implying cerebral localization. And still others react because they feel the term implies environmental emphasis to the neglect of genetic constitutional factors. The term word-blind has been unusually repugnant to British and American psychologists for they feel that such a diagnosis precludes the possibilities of effective treatment especially if the disability is hereditarily determined.

Critchley (1964) observed that these hagglings over terms and the rejection of a term has had the unusually serious result of the denial of the condition, i. e., throwing the baby out with the bath water.

Terminological preoccupation with its attendant confusions, criticism and skepticisms has, in some instances, shifted activity from the laboratory and clinic to the parlor so that when action programs are demanded there is confusion instead of direction. Hayes (1966) expressed the current difficulties succinctly.

"Recent conversations with specialists concerned with these various areas, with parents, teachers, and school administrators, with the Ford Foundation and with the U. S. Office of Education have revealed mounting public pressures to assist schools in sorting out the tremendously varied package they are now forced to treat with inadequate physical facilities and insufficiently trained personnel and inadequate diagnostic tools and *ad hoc* therapy. Clinicians in centers attached to medical schools or universities are concerned about the almost mystical nature of certain treatment methods, about the 'snow jobs' done on unsuspecting parents by private profit-making remedial centers, about the prescription of unnecessarily lengthy therapies, and about the special dangers in the irresponsible use of chemotherapy. . . . On the other hand diagnostic labels are put on children by medical people that provide no educational evaluation or that presuppose an educational program that may not exist. Parents are caught in the middle by doctors and psychiatrists who recommend special classes but do not say what should happen in those classes! . . . While there are indeed research centers and treatment centers, there is much duplication of work and an alarming unawareness in one part of the country with what is happening elsewhere. Some centers are weak in theoretical orientation but strong in treatment techniques; others do mainly pure research and have minimum facilities for treatment."

The scope and nature of the dyslexia problem demands the collaboration of neurologists, psychiatrists, pediatricians, ophthalmologists, audiologists, speech pathologists, educators, psychologists and many others working together with the aim of reducing these difficulties. These aims specifically would be: (1) the understanding of dyslexia as a nosologic entity, (2) the development of more adequate diagnostic instruments and procedures (3) the development of specific remedial procedures (4) the training of personnel in the areas of diagnosis and remediation, and (5) the collecting, organizing, evaluating and disseminating existing knowledge. The Reading Disability Center and Clinic were established at the University of Alabama Medical College in February, 1967 to bring together the necessary professional collaboration to contribute to the realization of these aims.

Immediately after the establishment of the Center and Clinic, it became apparent that one of the most pressing aims was the last named, the collection, organizing, and disseminating existing knowledge, for while there have been a number of popular presentations there are no concise statements of the nature or signs of dyslexia which will enable the practitioner to identify the disability or to substantiate a diagnosis which has been tentatively proffered.

The work of Hinshelwood (1917), Orton (1937), Schilder (1944), Bakwin (1950), De Hirsch (1954, 1966), Goins (1958), Benton (1959), Hermann (1959), Zangwill (1960), Ingram (1960), Silver and Hagin (1960, 1964), Shedd (1961), Schenk-Daszinger (1961), Money (1962), Vernon (1962, 1965), Critchley (1964, 1966), Bannatyne (1966), Mason (1967), and others leave no doubt that within reading disability cases there can be identified a subgroup which show certain characteristics. Some characteristics such as lack of dominance, poor spelling and writing from dictation, poor sensory-motor skills and familial relationship are commonly observed. Confusion in right-left discrimination, field dependent perception, disturbance in visual-motor Gestalt function, disturbances in tonal, temporal and spatial reproductive functions, and disorders of attention are observed by some researchers but not others. Continuing research in these areas illuminates the discrepancies, for it has been found that with increasing age and the consistent use of the same instruments for measurement some of the diagnostic signs are eliminated. This points to the weakness of the instruments rather than

some reduction or disappearance of the disability. (Silver and Hagin, 1964)

Another characteristic of the dyslexic which is frequently overlooked or experimentally ruled out is the temporal nature of some of the disabilities. Many of the examinations are conducted under "extra-ideal" conditions so that characteristics which appear in everyday continuous functioning are reduced. Research is now underway at the Reading Disability Center to clarify visual, auditory, and speech functions under varying conditions.

More and more it is becoming apparent that there is no unique identifying sign of dyslexia, but rather a pattern of signs which appear in contiguity. Out of context each of the signs might be encountered in other diseases or even in the healthy. Then, diagnosis must depend upon the clinical appraisal of the whole configuration of symptoms and test findings to adequately describe dyslexia, a set of symptoms, or a syndrome, must be present.

I. Test performance indicators

(1) Spotty performance on IQ tests, achievement is high in some areas; low in others.

There may be a discrepancy between the verbal and performance subtests on the Wechsler Adult Intelligence Scale and on the Wechsler Intelligence Scale for Children. Items which are usually involved are block design, coding and digit span.

The Stanford Binet includes items which are equally sensitive, memory for designs, immediate recall, digit span, and figure copying.

(2) Below mental age on tests of drawing a person.

A Goodenough draw-a-man test yields markedly depressed scores in relation to the individually derived IQ scores (Mason, 1967), Goodenough and Harris (1950), Koppitz, Sullivan, Blythe and Shelton (1959).

(3) Visual-motor Gestalt tests are poor for age and indicated intelligence.

A scoring system developed by Koppitz (1958, 1960) seems to show promise of objective evaluation on the Bender Visual-Motor Gestalt Test. An inspection procedure developed by Bender (1938, 1946) identifies severe dyslexics.

A series of twelve Gestalts, some drawn from the early investigations of the Gestalt psychologists were employed by Shedd and Drake. (1961) Scoring for closure, fragmentation, alteration of internal detail, destruction, simplification or primitivization, significant differences were obtained for dyslexics when compared with "normals." The most significant difference, however, lay in the failure of dyslexics to reproduce internal detail accurately.

Benton's (1962) findings that when differences in form perception are obtained between dyslexics and normals that they are observed to occur for the most part in younger children is apparently due to the simplicity and nature of the stimulus figures. Certainly such simplicity is present in the Ellis Visual Designs and the Benton Revised Visual Retention Test. The study of Silver and Hagin (1964) indicates that there is no reduction of symptoms with maturation.

(4) Poor performance on group tests which require reading and writing.

A typical study was conducted by McLaulin and Schiffman (1960), who compared scores on the California Test of Mental Maturity (requiring reading and writing) and on the WISC (an oral test) for retarded readers. Scores on the CTMM were found to reflect the degree of retardation rather than capacity to learn. The mean obtained for the CTMM was 79 while that obtained for the same sample on the WISC was 95. The standardized achievement tests ordinarily employed by the schools reflect the same thing, lack of language facility. Teacher made tests employed in ordinary classroom situations produce even greater differences. A study now in progress indi-

cates a mean variation between written and oral examinations of 50 points on a hundred point scale.

II. Impairments of Perception and Concept Formation

(1) *Impaired discrimination of right and left.* When asked which is the right or left hand the individual may be able to give an immediate answer, but when presented with cross-command tasks, there may be confusion. The individual with dyslexia may hesitate before making a decision involving right-left discrimination. Though such an individual may be able to identify his right or left hand, he may have difficulty identifying his right or left foot or other parts of the body. To orient themselves in terms of right or left, many of these people become dependent upon rings, watches, scars on their hands or other anchors.

Harris (1957), Benton and Kimble (1960), Silver and Hagin (1960), Shedd (1961), Koos (1964), Belmont and Birch (1965), have conducted studies which show that in the dyslexic individual there is defective right-left orientation. In unselected populations the incidence of such confusion is five per cent. Depending, of course, upon the measurement involved; the disability runs as high as 92 per cent for dyslexic samples. A right-left discrimination test which employed mannequins, impoverished to eliminate cues, was developed (Shedd, 1961). Stick men with arms at various positions, out, up, down, facing toward and away from the viewer were employed. These patterns, 24 in all, containing all combinatory possibilities are presented for one second. The subject is then asked to indicate the positions of the right and left arms. A check list is provided so that the subject marks for the mannequin's right arm and for the mannequin's left arm. The correlation between this instrument and the Wechsler Adult Intelligence Scale is .04. A correlation between the RLDT and scores on the Gates Oral Reading Test is .93. When the reliability of rho was computed, a t of 5.4 was obtained which is highly significant. Belmont and Birch (op cit) also indicate that right-left discriminative ability is more predictive of reading level than IQ.

Closely related to lack of right-left discrimination is a lack of right-left dominance. This difficulty may be determined by report —by asking the individual which hand or foot is preferred for a specific activity. In many instances, those individuals with dyslexia employ one hand for one task, another hand for another or employ regularly one hand while employing the opposite foot. In some few instances, he may be found to perform a task equally well with either hand or foot. Since this is a right oriented world, training may be extensive in right hand and foot use and evidence may require inference rather than report. Dyslexics and normal subjects matched for age, sex, and IQ were asked to trace with a stylus a five pointed star placed in a mirror writing apparatus. Each time the subject touched the side of the star becoming confused in direction, the error was electrically recorded. Trials with right and left hand were required. Since all of the subjects were right oriented it was understood that left hand trials would be effected by bilateral transfer. Comparison between the two groups for the right and for the left hand produced critical ratios of .76 and 1.17 which were not significant. However, comparison of right and left hand performance for each group produced 1.09 for the normal group and 2.19 for the dyslexic group. The latter is significant at the .05 level of confidence. From this we may infer that the dyslexic group is not as strongly dominant as the normal group. This is consistent with the finding of weak, mixed or inconsistent dominance (Orton, 1937), (Macmeeken, 1939), (Harris, 1957), (Ingram, 1959, 1960), Koos, (1964).

A study of handedness of family of procreation members of a dyslexic sample selected for participation in a summer remedial program indicated that of 99 participants 41 per cent were from families in

which one or more members were left handed or ambidextrous.

(2) *Poor spatial orientation.* This difficulty may be observed in relation to the Gestalt test, for when the dyslexic individual is given a blank sheet of paper and asked to draw a series of 12 designs, he has difficulty in organizing the designs in terms of the space of the paper. Rather than organizing the designs from left to right or from top to bottom on the page, he may begin at any point on the page, placing the designs harum-scarum fashion upon the page. It is expressed in other ways such as in reading; if he loses his place, he may not be able to find it easily—scanning the book on both pages from top to bottom, or from left to right before becoming reoriented.

(3) *Impaired orientation in time.* Temporal disorganization is shown in lack of organization of time sequence or rhythm. Maintaining a steady pulse is difficult. If there is a break or a pause in a temporal model, there is a tendency of the dyslexic to cut it short or to exclude the pause. Thus, he cannot reproduce simple whistling or clapping exercises.

(4) *Field dependent perception.* Ordinarily when we look at a differentiated visual field, we notice that one part stands out from the remainder. This is called *figure* and the rest is called *ground.* The figure appears to lie in front of or upon the ground, and the ground appears to extend continuously in an unbroken fashion behind the figure. Thus the figure seems to be more the center of attention in the field than does the ground. The individual with dyslexia does not discriminate between figure and ground in a pattern but responds to both. This may be ascertained by employing visual illusions or reversible figures. We employ the reversible cube, pyramid, and staircase. Two minutes are allowed for a report of reversal. Ordinarily, normal subjects report reversal after a fraction of a second or at most a few seconds. The dyslexic usually cannot report correct reversal. A comparison of Rorschach scores of dyslexic and normal subjects again give an indication of perceptual variation which might be interpreted as field dependency. The dyslexic subjects produce fewer whole responses and a greater number of small detail responses than the normal population. Both of these variations are significant at the .01 level of confidence. Small detail is usually interpreted as preoccupation with small insignificant and disparate material. This is taken as meaning that the production of small detail responses indicates a preoccupation with details for their own sake and not because the details are part of the larger scheme or plan.

(5) *Frequent perceptual reversals in reading and in writing numbers beyond age and instructional level.* Such errors are notorious in individuals just beginning to read or to write. Usually, however, such errors are eliminated after a brief history of a few weeks or months. For the dyslexic there is a continued confusion of left and right, up and down, with a subsequent reversal of letters or syllables within words or words themselves. The letter *b* becomes *d; p* becomes *q; saw* may be perceived as *was; left* as *felt; on* as *no.* Numbers may also be reversed, with *24* becoming *42* or *1946* becoming *1964.* Up and down confusion may cause such an individual to write *m* for *w* or *d* for *p.* This difficulty is expressed by Money (1962):

"Success with the alphabet in reading and writing requires that the reader override the principle of constancy that usually applies, namely that the significance of something remains constant despite inconstancy of the configuration of the perceptual sign. . . . A cup turned around is still a cup, but a *b* turned sideways is a *d* and turned head to toe is a *p* and turned both ways at the same time is a *q* (and nearly a *9* and a *q*). The dyslexic has the greatest difficulty in permanently and routinely allocating all this specificity of significance to an alteration not of shape but simply of directional orientation, to impaired reproduction of rhythmic pattern."

(6) *Impaired reproduction of rhythmic pattern.*

There is dysrhythmia or lack of rhythm in speaking and reading, in addition, there is difficulty in musical production, folk dancing or other patterned rhythmical activities. Even when patting out syllables of words or words of a poem, there is an obvious lack of rhythm. The greatest difficulty occurs with odd meters—three, five, seven. Even meters are easier for them.

(7) *Impaired reproduction of tonal patterns.* Though the dyslexic may be able to carry a tune if he is singing with someone else, he usually sings the part that the person next to him is singing; he finds it difficult to sing solo. If a tonal pattern is presented to him, he cannot reproduce the tonal pattern as he appears to hear the second overtone or to reproduce the tone a fifth below the standard tone. These subjects cannot continue patterns or sing roundelays or rounds.

III. Specific Neurologic Indicators

Following the work of Strauss and Kephart (1955) many investigators are eager to subsume any neurological impairment or dysfunction under the category of brain injury. Since there are no apparent signs of acquired damage in dyslexia and other disabilities, a new term has been coined, *minimal brain damage.* Many investigators find this objectionable. To meet this objection, the term has been changed to *minimal brain dysfunction.* This is likewise objectionable for it still places brain damage real and imagined into a single category.

The parents of 99 dyslexics were asked to retrospectively answer questions concerning prenatal, natal, and postnatal conditions relative to their dyslexic child. The following are the questions with their percentages of yes, no, don't know.

	Yes	No	Don't Know
1. Was the mother's health poor during pregnancy?	2	93	5
2. Did the mother have difficulty carrying child to term?	2	93	5
3. Did the mother have any illnesses during pregnancy?	4	91	5
4. Did the mother incur accident during pregnancy?	0	92	8
5. Was labor prolonged?	10	85	5
6. Was labor precipitous?	10	71	19
7. Were high forceps used?	10	68	22
8. Was the birth Caesarian?	2	95	3
9. Was the child discolored at birth?	0	85	15
10. Did the child require oxygen at birth?	3	84	13
11. Has the child been knocked unconscious?	10	89	1
12. Has the child had convulsions?	1	99	0
13. Has the child had extremely high fevers for prolonged periods?	10	89	1

It may be seen that there is no suggestion of injury or possibility of injury as ordinarily conceived. These percentages take an even greater significance when compared with case histories of children with choreiform movements studied by Prechtl. He reports that 50 per cent of the cases the course of pregnancy was complicated by toxemia, severe bleeding, etc. In 46 per cent neonatal disturbances occurred; 26 per cent had been treated for severe anoxia, 14 per cent had difficulties in sucking, in eight per cent delivery was premature. In 60 per cent there was history of postnatal illness, 12 per cent had frequent epileptic attacks. In 38 per cent there was a history of accidents with concussions. Rutter, Graham and Birch (1966) found no relationship between a choreiform syndrome, *per se* and reading disability.

Drew (1956) reported on a neurological study of children with dyslexia. He con-

cluded that his subjects possessed a developmental discrepancy rather than acquired brain injury and that the dysfunction primarily involves the parietal and parietal-occipital region. Critchley (1966) is more specific, pointing out that developmental dyslexia is an entity, an organic problem, not typically an expression of minor brain damage, but may be a specialized instance of cerebral immaturity.

Neurological examination yields few, if any, apparent gross abnormalities. There are however some "soft," equivocal or borderline findings.

Of some significance is hyperactivity. Hyperactivity may be observed in squirming, wiggling, fidgeting, cracking the knuckles, shaking a foot, tapping the table or desk, handling books or materials with fingers while engaged in another task, or walking around the room. These are, apparently, attempts on the part of the individual to regulate body tension.

IV. Disorders of Speech and Communication

(1) *Impaired discrimination of auditory stimuli.* Inadequate perceptual functioning makes it difficult for dyslexic children to detect differences in sounds of letters even though they have adequate hearing. Thus a child who cannot tell the difference between the beginning sounds of such words as *tag* and *sad* or hears no difference between *sat* and *set* will find it extremely difficult to learn to read when taught by a method which requires sound-letter association. There is frequently difficulty in remembering sounds of the common digraphs, ch, sh, etc. There is also a disability in synthesizing into their correct words, letters correctly sounded individually. The dyslexic child has difficulty in blending sounds. Even if he has been taught sufficient auditory discriminative ability to associate letters and sounds correctly he still cannot synthesize them to decipher unknown words. Vernon (1958) has pointed out: "Severe cases of disability seem to have deep seated incapacity to perform the process of analysis with facility and to synthesize or blend phonetic units to form complete words." Similar conclusions were reported by Weinschenk (1965). The usual educational argument of look-say versus phonics is beside the point where dyslexics are concerned.

Mason (op cit) has suggested that dyslexia may be characterized as two types, visuo-spatial and audiophonic. In our experience we have only met with a coexistence of both types. This is substantiated by the studies of Wepman (1960) and Goetzinger, Dirks, and Baer (1960).

(2) *Frequent mild speech irregularities.* The dyslexic individual has a speech difficulty which is most nearly exemplified by the diagnostic entity called "cluttering." In its most extreme form as a clinical entity, cluttering includes marked omissions and substitutions to a degree that approaches jargonic speech and not uncommonly involves dysrhythmia. The individual knows what he wants to say; he intends to say it; but what comes out is phonetically garbled, usually with inappropriate stress patterns.

The dyslexic child is usually slower in beginning to talk than the normal child and slower in acquiring speech accuracy.

V. Disorders of Motor Function

(1) *Non-specific motor awkwardness.* Rabinovitch (1954) pointed out "Observation of gait and the performance of motor acts such as dressing and closing doors and the handling of psychological test materials led to a definite impression of nonspecific awkwardness and clumsiness in motor function." Bakwin and Bakwin (1960) said: "A considerable proportion of affected children are abnormally clumsy. Their movements are jerky, uncoordinated and bungling . . . The condition is evident in early childhood, but becomes more prominent during school years. Our general observation is that this non-specific awkwardness manifests itself in a periodic lack of control of motor functions." At one moment the person appears to have satisfactory motor control and at the next

moment he may "fall over his feet" or "fall upstairs." Walking may be clumsy and motor movements may be made without grace or rhythm. Minor accidents are common with this group due to frequent falling or stumbling. Older boys may be interested in athletics that involve gross motor skills but frequently because they are suffering from minor injuries due to lack of motor control, consistent participation in such activities is not always possible. Individuals with dyslexia cannot execute motor activities upon request, such as patterned exercises. Tests have shown that they cannot coordinate steps with drumbeats. Other patterned motor activities such as the game "Peas Porridge Hot" or making a triangle with one arm while holding the other arm motionless present difficulties. Film records of 85 subjects diagnosed as dyslexic have been evaluated by individuals in physical education. Of three categories good, fair, poor, 83 were rated poor, with only two fair. It is not uncommon, however, to find these individuals doing well with swimming, soccer, or other activities which do not demand refined coordination and which allow for an "individual" style.

(2) *A Periodic Loss of Fine Motor Skills.* Disturbances in fine motor skills is evidenced in handwriting, drawing, coloring, cutting, or other manual activities that involve fine motor movements. In speech the lack of fine motor skills may be noticed in articulatory slurring or "speech clutter" or what we might describe as "sloppy speech."

VI. Academic Achievement and Adjustment

(1) *Reading Disabilities.* In order to ascertain the extent of reading disability a simple procedure was developed by Harris (1961). This involves subtracting five years from the mental age e. g. if the individual's mental age is 12.5 a subtraction of five yields a reading expectancy of 7.5 years. Much confusion is to be found in this area, for the usual procedure is to relate performance to chronological age and grade placement. It is frequently difficult for the uninitiated to conceive that a person who is reading at grade level can be behind in language performance relative to his expectancy.

The most effective instruments are oral reading tests. These provide an indication of the level at which the child can read, his competence in word analysis techniques, his attitude toward his difficulty, and his fluency, articulation and expressiveness in reading aloud.

(2) *Spelling Disabilities.* Spelling errors are quite apparent. Though a person with dyslexia and a good memory may memorize a given list of words and do well on a spelling test, he cannot retain the words because spelling is so strictly patterned that any variation is incorrect. Giving such an individual a list of 25 or so words of adequate difficulty will distinguish him from the subject who lacks knowledge of spelling. He will reverse, omit, add, or confuse letters; consequently a word such as *girl* will appear *gril.* Particularly are vowels and vowel sounds confused.

In more severe cases it becomes apparent by the choice of letters that the dyslexic subject is unaware of patterns of the English language. In one instance of extreme difficulty, when an adolescent boy was asked to write the months of the year, not only did the word May contain ten letters but most of the months ended with the letters *ari,* a pattern that is not used in our language.

As in reading, a spelling expectancy level should be established based upon mental age rather than chronological age or grade placement.

(3) *Writing Disabilities*

No special procedures for an indication of dysgraphia are required. Asking a dyslexic individual to write a paragraph is convincing enough. The writing will be slow, cramped, angular, uneven and uncertain as evidenced by the variation in the size of the letters, the variation in letter slant, and the tendency to

erase and scratch out. Here again there is some apparent discrepancy, for both parents and teachers may report that "when he chooses" or "makes the effort" he can write nicely. What this means specifically is that he can draw the letters when required to do so, but speeding up the operation produces the picture presented above. Much of the handwriting of dyslexics resembles that done by a person with the nonpreferred hand. Such letters as *p, q, g,* o and other letters which involve spatial orientation, are often marked over two or three times because the writer is not certain how to proceed from a certain point. Such letters are frequently omitted in the first writing of the word; these may be inserted later. Letters such as *i* and *e,* o and *a* or other letters that resemble each other may be deliberately blurred or camouflaged because the writer is unsure as to what the letter should be. In order to control the pencil at all, there is frequently over-control. The writer must grasp the pencil tightly, press hard, and "draw" the letters; consequently, imprints may be seen on two or three sheets of paper placed under the page on which he is writing. Due to lack of spatial orientation and confusion in directionality, writing on unlined paper is extremely difficult, with the writing wandering off to any point on the paper rather than proceeding from left to right.

(4) *Variability in performance.* The dyslexic's performance in language shifts from paragraph to paragraph from hour to hour and from day to day. An oral reading examination, typically, will yield many errors for the first paragraph, a reduction on the second and some successive ones, then a gradual deterioration leading in some instances, to complete inability to read. This variation causes teachers and parents to accuse the dyslexic of "goofing off" or to point to boredom or lack of interest as the reason for decay of performance.

(5) *Poor ability to organize work.* Tasks to be handled effectively require analysis into elements then synthesis into the whole. This is a process which the dyslexic cannot handle effectively. It is not uncommon for the dyslexic to work endlessly on one aspect of a task without ever relating it to task completion. Parents, while unaware of the difficulty, are frequently aware of the product. They point out that their dyslexic child can perform adequately as long as they are "sitting over him" but the moment they leave him to his own devices he fails. What they are suggesting is that as long as they provide the structure performance is adequate, but that the dyslexic finds it difficult to establish his own structure.

Even a ready-made structure is difficult to maintain. Maintaining a pattern or serial ordering of any kind is extremely difficult, as repeating digits, saying the alphabet, the days of the week, the months of the year. The dyslexic may be able to reproduce a series so long as he is not interrupted. If he is interrupted, he will not be able to proceed from that point but must go back to the beginning and produce the whole series.

(6) *Slowness in finishing work.* An understanding of reading, writing, spelling disabilities plus the poor ability to organize work makes it apparent why the dyslexic is slow in completing a task.

VII. Characteristics of Social Behavior

Concepts are nurtured and develop through oral language. When visual symbols become comprehensible and used these concepts become more abstract. Wepman (1962) points out:

"The child as he acquires the ability to do his learning through the printed word also acquires the mechanism for greater abstraction. He is no longer bound to the temporal sequence of audition but develops the spatial sequences of vision—he learns that words substitute not only for the immediate here-and-now, but for the distant there-and-then, for the past and future as well as the present to which he has been limited . . . Now abstraction takes its most definitive form where the object to be abstracted is present only as a substitutive symbol, from the concrete

present the individual matures to the abstracted past and future."

Piaget has pointed out the child ordinarily shifts from egocentricity to ethnocentricity at the age of six. He has not suggested how and why this shift occurs other than to point out that the personality needs of the child are such as to lead him to seek for external sources of satisfaction. There may be a more objective reason for change such as suggested by Wepman. With the development of reading the potential for externalization becomes available. The dyslexic child fails to develop the essential phase of cognitive maturation which permits the easy transition to ethnocentric adaptation. If such is the case any difficulty which reduced the linguistic function should produce similar results. Altshuler (1964) has found for the deaf "that internalization of rage is deficient . . . so that the guilt and retardation are less likely to appear. The deficit has been related to the distortions in object relationship imposed by the communication barrier of deafness and by the limitations in abstract conceptual ability which accompany this handicap. Contributing factors are failure to recognize the consequences of behavior, lack of conviction that punishment is inevitable, deficient control of impulses, and lack of empathic concern and regard for love object."

Whether personality organization is limited by communication dysfunction as suggested by Wepman and Altshuler or whether it is due to conflict or inferiority cannot be said but that the dyslexic is egocentric cannot be denied.

The dyslexic's social behavior and competence can be characterized as below average for his age and measured intelligence. There are typically negative and aggressive attitudes toward authority and there may be anti-social behavior. A literacy program in both penal institutions in the state of Kentucky, La Grange and Eddyville, indicated that 43 per cent of the inmates were dyslexic. In delinquency prone areas those individuals who cannot read are delinquent, while in the same population areas, those children who learn to read are less likely to be delinquent.

VIII. Disorders of Attention and Concentration

(1) *Short attention span for age.* Tension levels of the dyslexic fluctuate to a marked degree. Individuals with this disability receive a stimulus one moment, and the next moment the stimulus does not "get through;" hence, there is an "inattention phenomenon." At such a time, the individual may appear to be day dreaming or "tuned out" to external stimuli. The stimulus may have to be increased in intensity or repeated. Often times, changing the stimulus, touching the person, or asking him to change his physical position may help regulate the tension level and improve performance.

(2) *Impaired concentration ability.* The failure to maintain an optimal tension level for a task is introspectively viewed as lack of ability to concentrate.

General Considerations

These characteristics appear to be hereditary. According to Brewer (1963) who conducted a study of an extended family group: "From the maximal estimate pedigree, it is concluded that specific language disability is a dominant sex-influenced or partially sex-linked tract with almost complete penetrance."

Studies of identical and fraternal twins also provide evidence. Hallgren (1950) published data for six pairs of twins, three identical and three fraternal. Hermann (1959) presented material for 28 pairs, seven identical and 21 fraternal. A few years after this presentation Norrie presented additional material on 11 pairs, two identical and nine fraternal. In all cases presented there was 100 per cent concordance among identical twins, whereas the concordance for fraternal twins was only about 30 per cent. Dys-

lexia appears in siblings in 17-20 per cent of the cases.

The sex influenced or partially sex-linked nature of dyslexia is not understood. According to Money (1962) "The predominance of males with dyslexia is not related to any known disorder of sex hormone functioning; nor can it be attributed, on the basis of current endocrine knowledge and research techniques, to differences in hormone levels."

In dyslexia samples the ratios of males to females may vary from sample to sample My work over the past ten years has produced a 6-1 ratio. It would certainly be premature, however, to designate this as a fixed figure. It is the finding of all investigators that the number of males with dyslexia greatly outnumber the number of females.

It would be inviting to relate dyslexia to some endocrine disorder. Dyslexia is not a symptomatic characteristic of any of these diseases. Money (op cit) indicates specifically that it is not a characteristic of hypothyroidism. The work of Ferguson-Smith (1961), Sohval (1961) has offered no evidence that there is a relation between dyslexia and chromosomal aberration.

There is no specific relation between dyslexia and problem solving ability or IQ when conceived as a general factor. Perhaps the most difficult cases to identify and the more serious cases in terms of intellectual loss are the exceptionally bright children who are suffering from a mild disability. Though their academic progress is seriously impeded, their problem is concealed by the capacity to achieve despite the disability. These are the children who learn well auditorially, may have a substantial spoken vocabulary and may make satisfactory progress orally, but break down completely on written material. For this reason they may develop a system of tricks or gimmicks which enable them to learn, but which may impair desirable personality development.

A conservative estimate is that 10-15 per cent of the total population is suffering from this disability. These large numbers of intellectually able individuals are prevented from living normal lives by a remedial disability that makes it difficult for them to learn. The resulting cost in human waste and suffering has been high in terms of psychological problems, inadequate academic achievement, and inadequate and unhappy lives. Such waste of human resources need not be the case. Early identification of the problem and appropriate education may greatly reduce this waste.

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HOW LIKE IS "LIKE"?

Lately, you have been urged to use a semi-synthetic penicillin as though it were a broad-spectrum antibiotic.

Should you? In the face of the fact that the Council on Drugs of the American Medical Association has for some time advised against it?[1] And now the new (1967) United States Dispensatory says much the same thing, in even stronger terms—that the drug in question is neither a broad-spectrum antibiotic in the sense that the tetracyclines are, nor is it even the first penicillin with a wider range of antibacterial action.[2]

Should you, for example, in treating pneumonia? The rationale for using this penicillin in pneumonia is that it is effective against *Hemophilus influenzae* as well as against *Diplococcus pneumoniae*.

So, be it noted, is DECLOMYCIN.

But what about *Mycoplasma pneumoniae*, which may be better known to you as Eaton Agent? No penicillin is known to be effective against this common cause of pneumonia. DECLOMYCIN is.

Some believe that *Mycoplasma pneumoniae* may be responsible for upwards of 30 per cent of all cases of pneumonia.[3] Could this mean that if you employ a penicillin in pneumonia when the etiological agent is unknown, there may be an automatic 30 per cent chance of failure?

When you consider using a drug *like* a broad-spectrum antibiotic, why not use a *true* broad-spectrum antibiotic? Like DECLOMYCIN.

References: 1. A.M.A. Council on Drugs: *New Drugs* 1966 ed. Chicago: American Medical Association, p. 12. 2. Osol, A.; Pratt, R., and Altschule, M.D.: *The United States Dispensatory*, 26th ed. Philadelphia: J. B. Lippincott Co., 1967, p. 844. 3. Purcell, R. H., and Chanock, R. M.: Role of Mycoplasmas in Human Respiratory Disease. *Med. Clin. N. Amer.* 51:791 (May) 1967.

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DEMETHYLCHLORTETRACYCLINE

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Prescribing information on next page.

For a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill.

TRUE BROAD SPECTRUM

DECLOMYCIN Demethylchlortetracycline should be equally or more effective than other tetracyclines when the offending organisms are tetracycline-sensitive.

Contraindication: History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth — dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

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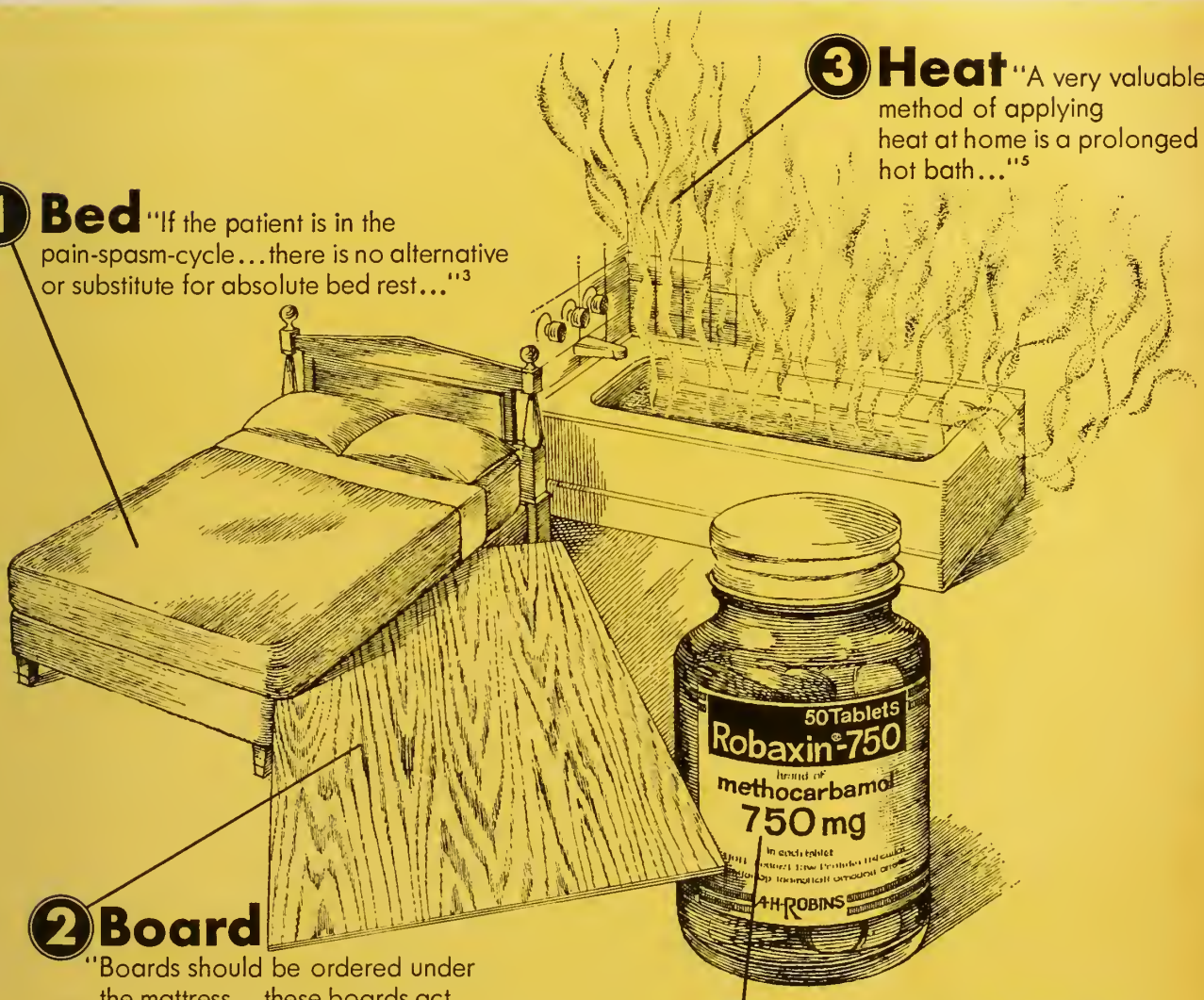
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LOW-BACK PAIN

A CONSERVATIVE, FOUR-POINT PROGRAM

The low back pain that is most frequently seen in general practice is mechanical in nature, i.e., postural back pain, joint dysfunction and acute back strain.[1,2] For this type of discomfort, a conservative regimen is usually sufficient to relieve aches and pains, and to help keep the patient functioning. Components of this basic program include:



1 Bed "If the patient is in the pain-spasm-cycle...there is no alternative or substitute for absolute bed rest..."[3]

2 Board "Boards should be ordered under the mattress...these boards act by immobilizing the spine..."[4]

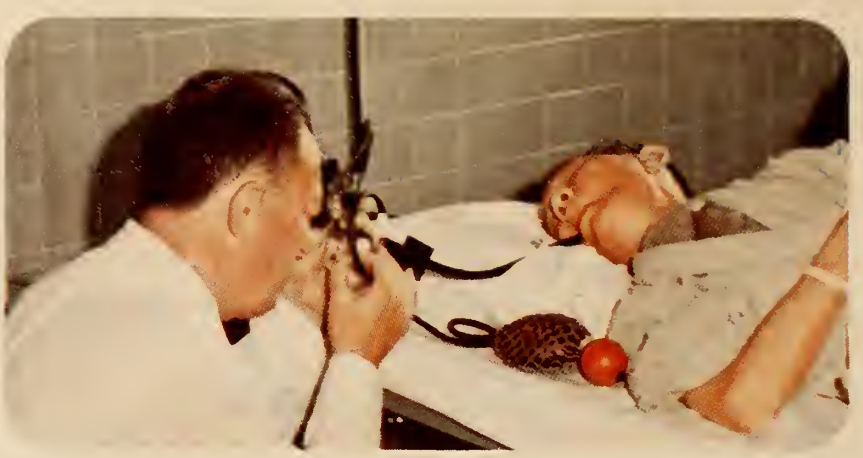
3 Heat "A very valuable method of applying heat at home is a prolonged hot bath..."[5]

4 Robaxin®-750 (methocarbamol, 750 mg. capsule-shaped tablets) A well-tolerated[6] skeletal muscle relaxant, methocarbamol helps relieve spasm "...without interfering with normal tone and movement."[7] And there is little likelihood of sedation.[6]

Indicated for relief of skeletal muscle spasm. **Contraindicated in** hypersensitive patients. **Side Effects** (lightheadedness, dizziness, drowsiness, nausea) may occur rarely, but usually disappear on reduced dosage. Hypersensitivity reactions develop infrequently. See product literature for further details. **Also available:** Robaxin® Tablets (methocarbamol, 500 mg.) Robaxin Injectable (methocarbamol, 1 Gm./10 cc.)

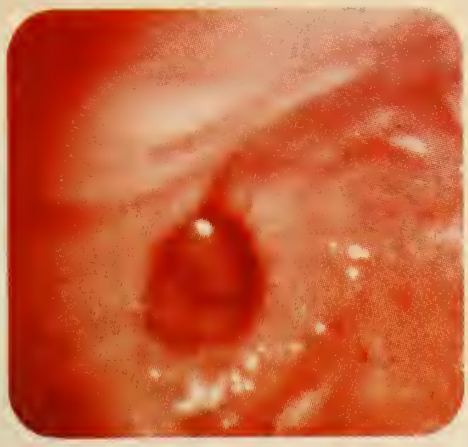
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NEW EVIDENCE:

Pro-Banthīne® (propantheline bromide)
gives positive, selective benefits in gastrointestinal disorders.



Intragastric photograph of pyloric region showing complete relaxation of pyloric sphincter with 6 mg. of Pro-Banthine intravenously.

AN IMPORTANT PROBLEM in managing gastrointestinal disorders has been the choice of an anticholinergic agent which will act positively and selectively on the gastrointestinal tract without extensive secondary effects.

Recent direct observations with the cinefibergastroscope and intragastric photography[1] visually confirm previous evidence that Pro-Banthine does, indeed, possess such selective activity.

Barowsky and his associates demonstrated that a minimal dose of 6 to 8 mg. of Pro-Banthine intravenously produced complete relaxation of gastric activity. Secondary effects were not significant.

By contrast, it required 0.8 mg. or double the usual dose of atropine intravenously to achieve similar gastric relaxation. Side effects of this dosage of the belladonna alkaloid were pronounced. Ventricular rates were as high as 150 per minute.

For positive, selective anticholinergic benefits Pro-Banthine is indicated in patients with peptic ulcer, gastritis, irritable colon and other forms of gastrointestinal hypermotility.

Dosage: The maximal tolerated dosage is usually the most effective. For most *adult* patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthine (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type ampuls of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

Contraindications: In glaucoma or severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in the elderly male with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug.

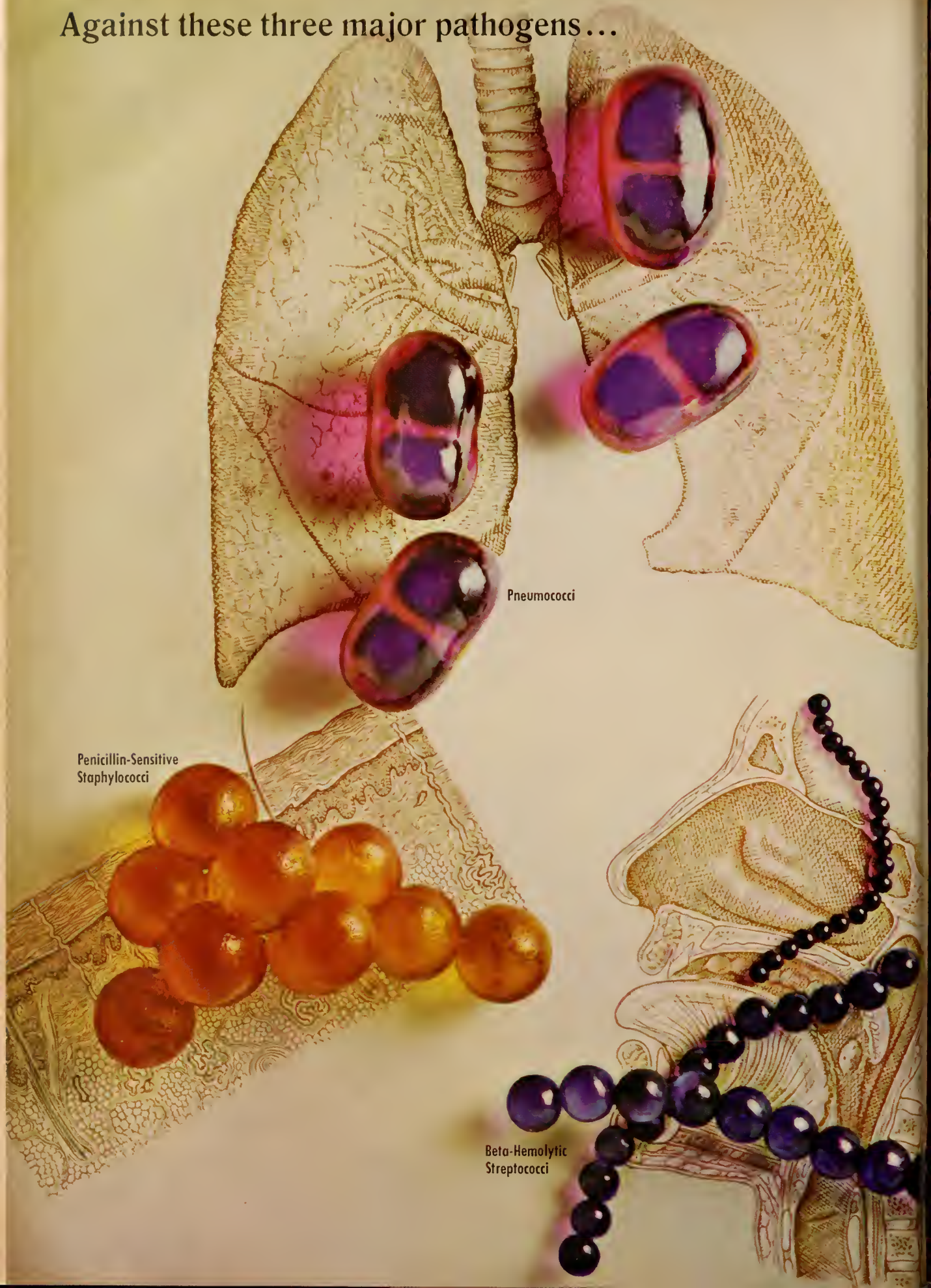
Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

1. Barowsky, H.; Greene, L.; Bennett, R., and Buganza, G.: The Effect of Anticholinergic Drugs on Gastric Motility and Pyloric Function, Scientific Exhibit, Annual Convention of the American Medical Association, Chicago, Illinois, June 26-30, 1966.

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Against these three major pathogens…



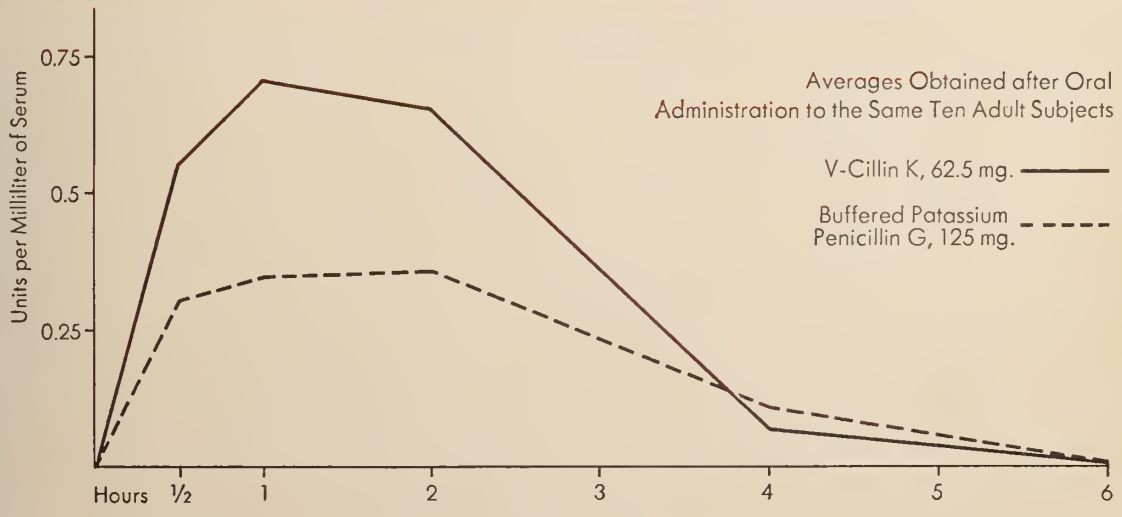
V-Cillin K® provides dependable oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph.Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptacaccus, Group A MIC (mcg./ml.) Median	Range	Diplacoccus Pneumoniae MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxocillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M. New England J. Med.,269:1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K® Lilly 700867
Potassium Phenoxymethyl Penicillin

(See next page for prescribing informatio

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin and in those with bronchial asthma or other allergies. Resuscitative drugs should be readily available for emergency administration. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for relief of immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosage schedules, frequent evaluation of the renal and hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth of pencillin-insensitive organisms. In such cases, its administration should be discontinued, and appropriate measures should be taken.

Adverse Reactions: Although serious allergic reactions are much less common with administration of oral penicillin than with intramuscular forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a significant index of sensitization. The following hypersensitivity reactions associated with the use of penicillin have been reported: skin rashes ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenia, thrombocytopenia, and nephropathy are rarely observed side-effects and are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K, Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, the daily dosage may be 50 mg. per Kg. of body weight divided into three doses.

Beta-hemolytic streptococcus infections without associated bacteremia may be treated with 200,000 to 400,0000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. Dosage for routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units once or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and for two days postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderately severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every four hours for three doses may be employed; in females, 500 mg. every four hours for six doses are recommended. Refractory infections generally respond to a second treatment three to four days following completion of the first. Treatment of gonorrhea with severe complications should be individualized, with prolonged and intensive treatment. Patients with a suspected lesion of syphilis should have a dark-field examination before receiving penicillin and monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), in bottles of 50 and 100; and 250 mg. (400,0000 units) and 500 mg. (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) per 5 cc. of solution, in 40, 80, and 150-cc.-size packages. [032067]

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

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The Doctors Searcy - Reuben Searcy And His Descendants*

Emmett B. Carmichael, M. S., Ph. D.

University of Alabama Medical Center

Birmingham, Alabama

I

REUBEN SEARCY

America has had many families which have had two or more generations of distinguished physicians but none have been more illustrious than the Searcy family.

The Searcy family was originally from England near the border of Wales.

Dr. Reuben Searcy was the grandson of Reuben and Susan (Henderson) Searcy. His grandfather served as a colonel in a Kentucky regiment during the Revolutionary War.

Dr. Reuben's parents were Thomas and Ann (Martin) Searcy of Rockingham County, North Carolina. Reuben was the first member of the American branch of the family to study medicine and was the progenitor of the Searcy clan in Alabama. Alabama owes a great debt to Reuben Searcy and his descendants. He was born at Chapel Hill, North Carolina on December 20, 1805 and his family moved to Rockingham County when he was one year old. In 1826, at the age of 21 years, he went to Tuscaloosa where he became a clerk on the steamboat, "Tuscaloosa" which made the run from Mobile. James H. Dearing, his brother-in-law, was captain of the "Tuscaloosa." Reuben became second engineer for a time on another steamboat which was running on the Alabama river.

Having decided to study medicine, Reuben left steamboating and engaged in teaching school, first in Northport and then in Tuscaloosa in order to make enough money to commence his medical studies. While teaching school, he read medicine in the office of Dr. James Guild, father of Lafayette Guild, surgeon and medical director of the Army of Northern Virginia under General Robert E. Lee. He enrolled in the medical department of Transylvania University in 1830 and again in 1831. He was graduated from the medical department in a class of 73 on March 19, 1832. His thesis of 19 pages is on "The Pathology of Fever."



Reuben Searcy

Dr. Reuben Searcy opened his office at Carthage, Alabama, a small village about 17 miles south of Tuscaloosa. During the year he saved enough money to pay off his debts incurred while at Transylvania, then he moved to Tuscaloosa and formed a partnership with his former preceptor, Dr. James Guild. This association lasted only two years but they remained the best of friends. At

*Read at the Forty-fourth annual meeting of the Alabama Academy of Science, Huntsville, Alabama, April 7, 1967.

first, Dr. Searcy's practice extended into Bibb, Fayette, Perry, Greene, Pickens and Walker counties. As other physicians came to Alabama, his practice narrowed to Tuscaloosa and the neighborhood. His practice became quite extensive and he practiced continuously for almost 55 years except for the winters of 1841 and 1842 when he represented Tuscaloosa County in the state legislature. In 1858, he was appointed president of the Board of Trustees of the Alabama Insane Hospital, a position he held without pay until his voluntary resignation about 30 years later. Of the seven original trustees, he was the only one that was allowed to continue in office.

Dr. Searcy took an active part in both the Tuscaloosa County Medical Society and the Medical Association of the State of Alabama.

Dr. Searcy was a member of the Presbyterian church and filled many places of trust and responsibility.

He married Miss Evelina S. Nove in October, 1834. She died in June, 1836, leaving a three months old infant that died a few weeks later. In 1837, he married Miss H. A. Fitch of Vermont, a teacher in the Alabama Female Institute, Tuscaloosa, which was directed by Rev. William H. Williams, the pastor of the local Presbyterian Church.

Five children were born to this union: (1) Evie Fitch, who died unmarried, age 82 years; (2) James Thomas; (3) Reuben Martin, a lieutenant in the Confederate Army, killed in battle of Murfreesboro; (4) Stella; (5) George Alexander.

Dr. Reuben Searcy died on March 10, 1887 and was buried in Greenwood Cemetery, Tuscaloosa. His wife and four of his children survived him.

II

JAMES THOMAS SEARCY

Of the second generation, we find that Dr. James T. Searcy was recognized as one of the leading physicians not only of Tuscaloosa but also of Alabama for more than 50 years.



James Thomas Searcy

James Thomas Searcy was born on December 10, 1839, the son of Dr. Reuben and Ann Abigal (Fitch) Searcy. He attended the local Tuscaloosa schools and enrolled in the University of Alabama where he received the A. B. degree in 1859. In December, 1861, he enlisted as a private in Lumsden's Battery and was transferred to a reserve battalion of artillery in 1862. His later service was as sergeant major under General Felix H. Robertson but he was taken prisoner at Murfreesboro and subsequently exchanged. After reading medicine with his father, James enrolled in the Medical Department of New York University and graduated with the M. D. degree in 1867.

There were 74 members of his graduating class and he distinguished himself as a student by winning two of the six available prizes to the graduating class: (1) Loomis prizes for reports of cases occurring at his clinics. Dr. Searcy won the second prize and (2) Rosa prize for the best report of his clinics during the winter session. Only one prize was offered and Dr. Searcy won it.

The requirements for graduation were that the student must have studied medicine for three years and must have attended two courses of medical lectures, one of which had to be delivered in the Medical Department of the University of New York.

On graduation, Dr. James Thomas Searcy commenced the practice of medicine in Tuscaloosa as a partner with his preceptor and father, the distinguished Dr. Reuben Searcy.

He joined the American Medical Association in 1869 and took an active part in its proceedings as well as those of other medical societies that honored him with membership. The Medical Association of the State of Alabama honored him by electing him to many of its offices—first vice president, second vice president and the presidency for 1893-93. He was elected a junior counsellor in 1884; senior counsellor in 1889; grand senior counsellor in 1894 and grand senior life counsellor in 1904. He was the only member honored by being selected to deliver the three major addresses of the Association in addition to the message of the president: (a) The annual oration, 1885; (b) Monitor's address, 1896 and (c) the Jerome Cochran Lecture, 1899.

He served as a member of the State Board of Health and Medical Examiners. He served as president of the American Medico-Psychological Association. He was a member of the Medico Legal Society of New York and a member of the American Academy of Medicine.

He not only served on committees but he presented papers and was an active discussant of papers at annual meetings. He was a member of the Alabama Historical Society.

His bibliography covers a wide variety of topics: Heredity; Hyperaesthesia; Relation of Alcohol and Crime; Nervous Control; Mental Abnormalities; The Increase of Insanity; Caffeine Beverages; Relation of the Medical Profession to the Liquor Traffic; Boric Acid; Pellagra; Functional Brain Degeneracy; Cerebrasthenia; Psychoasthema and Neurasthema; Toxins; Defective, Dependant and Delinquent; and What is Insanity?

Dr. Reuben Searcy served as President of the Board of Trustees of the Alabama Insane Hospital from 1857 to 1887 when he resigned because of poor health. However, he had the pleasure of seeing his son, James Thomas, appointed by the Governor of Alabama to fill his place on the Board. Dr. James served from 1887 to 1892 when he was appointed the Superintendent upon the passing of Dr. Peter Bryce, a position he held for the next 27 years. He resigned in June, 1919.

While at the University of Alabama, he was a member of Phi Delta Theta fraternity. His interest and enthusiasm in his alma mater was recognized when he was elected First Vice President of the Society of Alumni in 1894. Dr. Searcy was a Democrat and a life long member of the Presbyterian church where he served as an elder for many years.

On January 22, 1868, Dr. Searcy married Ann Ross, daughter of Captain Walter Ross of Virginia who was a quartermaster in the Creek Indian War under General Jackson. Twelve children were born to this union: (1) Reuben Maryin, November 2, 1868; (2) Walter Ross, May 17, 1870; (3) James Thomas, Jr., April 4, 1872; (4) Battle Sorsby, November 20, 1873; (5) Annie Ross, July 22, 1875; (6) George Harris, February 14, 1877; (7) Joseph Alexander, March 28, 1879; (8) Abbie Fitch, February 25, 1881; (9) Peter Bryce, December 11, 1882; (10) Harvey Brown, September 15, 1884; (11) Evelyn Gray, May 23, 1886; (12) Julia Dearing, July 24, 1888.

Dr. Searcy died on April 6, 1920 and was buried in Evergreen Cemetery, Tuscaloosa. The Mount Vernon Branch of the Alabama Insane Hospital was named the Searcy Hospital in his honor. At his death, a committee of the Trustees of the Bryce Hospital drew up a lengthy paper which enumerated many of the improvements in the whole hospital system due to Dr. Searcy's able management.

III (a)

REUBEN MARTIN SEARCY

The third generation furnished four members of the health team and two of the young women married physicians.

Reuben Martin Searcy was born on November 2, 1868. He attended the local schools

(Continued on Page 174)

The Mediatric® Age:

Many patients, with or without a functional illness, show symptoms o
an aging metabolism: disinterest... lassitude... vague aches and pains

Mediatric® can help them lead a more active, useful life



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McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

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MEDIATRIC helps keep the older patients alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, and lack of interest so often associated with declining gonadal hormone secretion.

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WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: **Male and female:** 1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

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Intrinsic factor concentrate	8.0 mg.	–
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Thiamine mononitrate	10.0 mg.	–
Riboflavin	5.0 mg.	–
Niacinamide	50.0 mg.	–
Pyridoxine HCl	3.0 mg.	–
Calcium pantothenate	20.0 mg.	–
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(Continued from Page 171)

in Tuscaloosa and enrolled at the University of Alabama in 1883. He received the A. B. degree in 1887 and served as assistant in Chemistry at the University of Alabama the next year. He enrolled at the University of Virginia to pursue a literary course where he held the title of Assistant Professor of Chemistry in 1890. He also was permitted to take two medical courses without cost. He resigned his position to enter the School of Medicine, Georgetown University, Washington, D. C. and received the M. D. degree in 1892. The University of Alabama conferred the M. A. degree on him in 1892.

Dr. Reuben Martin Searcy died on July 16, 1892.

III (b)

BATTLE SORSBY SEARCY

Battle Sorsby Searcy was born November 20, 1873. He enrolled at the University of Alabama in 1889 and earned the A. B. degree in 1893. He enrolled in the Philadelphia School of Applied Arts for the year 1893-94. The next two years were spent as superintendent of the cotton mill at Samantha, Ala.

On October 1, 1897, Battle enrolled in the Baltimore College of Dental Surgery and graduated in May, 1900. He ranked fifth in a graduating class of 73. In his freshman year, he won the Freshman prize (a gold medal) and in his senior year he won the Bridge-work prize (a set of forceps given by the faculty).

Dr. Battle opened his office in Tuscaloosa where he practiced for many years. He served as president of the Alabama Dental Association in 1915.

In 1902 he married Miss Mary Strudwich Nicholson and two children were born to this union: Battle S., Jr. and Elizabeth (Mrs. Porter). Mrs. Battle Searcy served as a member of the Board of Managers of the Partlow State School 1921-43.

Dr. Battle Sorsby Searcy died on January 11, 1951 and was buried in Evergreen Cemetery, Tuscaloosa.

III (c)

GEORGE HARRIS SEARCY

George Harris Searcy was born on February 14, 1877. He attended the local schools and Verner Military Academy, Tuscaloosa. Then he entered the University of Alabama in 1893 and received the A. B. degree in 1897. Young George took part in extra-curricular activities—vice president of his freshman class, member of the German Club, member of the Philomathic Literary Society, Junior orator and was a sergeant in the student corps.



George Harris Searcy

After reading medicine with his father, Dr. James T. Searcy, George enrolled at Tulane in 1897 and attended two terms. He entered the third year of medical school at the University of Michigan on September 26, 1899 and received the M. D. degree on June 20, 1901. He interned at Bryce Hospital 1901-02 and was assistant superintendent of the insane hospital, Mt. Vernon, Alabama, 1903-09.

When Dr. William Crawford Gorgas was requested to inspect Panama for the Canal

Commission in 1904, he selected several doctors to accompany him and Dr. George Harris Searcy was one of them. However, Dr. Searcy came down with malaria within a few months and had to return home.

It was while Dr. George was at the Mt. Vernon Hospital that he observed the first epidemic of pellagra in the United States of America. He wrote a paper on his observations and it appeared in the Transactions of the Medical Association of the State of Alabama in 1907. The complete paper was reprinted in the Journal of the American Medical Association, July 6, 1907. Dr. Searcy made the keen observation that the diet was responsible for the disease. The following quotation from the Transactions points up the fact that he was a well-trained physician: "No nurses had the disease. They handled the patients, slept in the halls near them, and the chief difference in their way of living was in the diet. They ate little corn bread, mostly flour bread, biscuits, etc., and had a little more variety of diet. As soon as the nature of the disease was determined and the true cause suspected, the patients were taken off corn bread and grits and wheat bread and potatoes substituted. The rest of their diet was continued as before. No new cases, except the one in the test case, appeared after about ten days. A set of eight patients was kept on the former diet with corn bread and grits as a test. One of these developed the disease, another began to show symptoms, and all became in such poor general health that their diet was changed also."

Many of the textbook writers gave Dr. Searcy credit for his observations. However, when Goldberger repeated his work in 1913, he was given the credit for proving that it was a dietary disease.

Dr. George entered private practice in Tuscaloosa in 1909 and continued as an active practitioner for the next 26 years except for the time he spent in World War I. In 1918, he was commissioned a major in the Medical Corps of the United States Army and was ordered to Washington, D. C. Then he was sent as commanding officer of the Army Hospital at Panama, Canal Zone. After his discharge in December, 1918, he returned to Tuscaloosa to resume his practice in general medicine and surgery.

He was a member of the Tuscaloosa County Medical Society, the Medical Association of the State of Alabama, the Southern Medical Association, the American Medical Association and the American College of Surgeons. He was a member of the State Board of Censors of the State Association from 1934-35 and was an Active Counsellor from 1929 to 1935. He was a trustee of the Alabama Insane Hospital from 1929 to 1935.

Dr. Searcy was attending surgeon of the Druid City Hospital and consulting surgeon of the U. S. Veterans facility, Tuscaloosa, from its dedication on July 6, 1932 until his death.

Dr. Searcy was a frequent contributor to the medical literature. He was a member of Phi Beta Kappa and Phi Delta Theta. He was a member of the Tuscaloosa Kiwanis Club.

On May 8, 1908, Dr. George married Miss Mary Elizabeth Persinger of Lodgepole, Nebraska. One daughter, Harriet Persinger, was born to this union.

Dr. George Harris Searcy died on May 6, 1935 and was buried in the Tuscaloosa Memorial Park.

III (d)

HARVEY BROWN SEARCY

Harvey Brown Searcy was born on September 15, 1884. He attended Stafford School, Verner Military Academy and enrolled in the University of Alabama in 1899 when he was 15 years old. He received the B. A. degree in 1903 and enrolled in the School of Medicine, University of Michigan on September 29, 1903. He was awarded the M. D. degree on June 20, 1907 and immediately began a year of internship at the Bryce Hospital, Tuscaloosa. The next year was spent as a partner of Dr. S. L. Ledbetter,

Eye, Ear, Nose and Throat specialist in Birmingham. Then he served as an assistant with Dr. E. C. Ellett of Memphis.

During World War I, Dr. Searcy served as surgeon with the rank of captain in the Army Base Hospital 115 in Vichy, France. After the war was over, he returned to Tuscaloosa where he had opened his office in 1913.

Dr. Harvey was quite an active member of the Medical Association of the State of Alabama. He was elected as an active Counsellor in 1923 and in 1944 he was elevated to Life Counsellor, an office he held the remainder of his life. He served on the standing Committee on Prevention of Blindness from 1926 to 1934 and was chairman the last year. He was a member of the Committee on Legislation and Medical Education in 1931 and in 1935 he was reappointed on the Committee on Prevention of Blindness and Deafness. He served as alternate delegate to the A. M. A. in both 1933 and 1934. He was elected president at the Montgomery meeting in April, 1942 and presided in 1943 at the meeting in Birmingham. He was a member of the American Academy of Ophthalmology and Otolaryngology, the Southern Medical Association and the American Medical Association. He was chairman of the eye, ear, nose and throat section of the Southern Medical Association in 1940. He served as president of the Tuscaloosa County Medical Society. He was the first president of the Alabama Chapter of the American College of Surgeons. Dr. Searcy was certified by the American Board of Ophthalmology and was certified by the American Board of Otolaryngology. He served as a member of the Board of Trustees of the Bryce Hospital from 1937 to 1952.

He authored the book, "We Used What We Had." He wrote a pamphlet on "My First Case" and contributed several articles to the medical journals. He invented some 26 instruments that he employed in his specialty and many have been in common use by the profession.

Dr. Searcy was honored by being elected



Harvey Brown Searcy

to Alpha Epsilon Delta, Sigma Xi, O.D.K., Phi Rho Sigma and Phi Delta Theta. He was an active member of the Rotary Club for 46 years and served as its president. Dr. Searcy was Tuscaloosa's 1961 Citizen of the Year. He was a Mason and a member of the Tuscaloosa Shrine Club.

He was listed in the following reference works: Who's Who in American Medicine, Who's Important in Medicine, Library of Alabama Lives and Who's Who Among Physicians and Surgeons.

Dr. Searcy was a member of the Christ Episcopal Church of Tuscaloosa.

Dr. Searcy married Mary Emily Fitts in 1915 and two daughters were born to this union: Ann (Mrs. Robert L. Yoder) and mother of Dr. Robert L. Yoder, Jr.; Emily (Mrs. Clayton Rogers). Mrs. Harvey B. Searcy was elected a member of the Board of Managers of the Partlow State School in 1952 and served until October, 1965.

Dr. Searcy died on February 28, 1964 and was buried in the Tuscaloosa Memorial Park.

IV (a)

JAMES SEARCY SNOW

The fourth generation of descendants of

Reuben Searcy furnished three physicians as did the third generation.

James Searcy Snow was born on July 25, 1909 in Tuscaloosa. He was the second son of Henry Adams Snow and Abbie Fitch (Searcy) Snow. James' father died when he was seven years old and no doubt his physician uncles, George and Harvey, helped influence him to follow their profession.

Young Snow attended the local public schools and graduated from Tuscaloosa High School in 1927. He attended the University of Alabama in 1927-28 but transferred to the University of Colorado, Boulder, Colorado where he graduated with the B. A. degree in August, 1930. He enrolled in the School of Medicine, University of Colorado and received the M. D. degree in June, 1934. While in the School of Medicine he did graduate work in the Departments of Physiology and Pharmacology during the holidays and earned the M. A. degree. His internship was at the Lloyd Noland Hospital in Fairfield, Alabama and he received his license to practice in 1935.

In 1935 he accepted a residency in the Department of Dermatology, University of Michigan, and he stayed on as an instructor for two years and for two more years as research associate. In July, 1940, he formed a partnership with Dr. Andrew L. Glaze, Dermatologist of Birmingham, which lasted only six months. Then he opened his office in Birmingham and was certified by the American Board of Dermatology in December, 1941.

With the outbreak of World War II, he entered the army as a 1st lieutenant and was sent to the Panama Canal Zone. He was promoted to captain in February, 1943 and major in November, 1943. In March, 1945 he was assigned to Kennedy General Hospital, Memphis, as Chief of the Dermatology Service. He was separated from the service in March, 1946 as Lt. Col. M. C., A. U. S.

Dr. Snow entered private practice of dermatology in Birmingham for a second time in 1946 and in 1949 moved to Tuscaloosa where he has continued to enjoy a busy practice. He was elected to A. O. A. while a medical student and because of his research was elected to the Colorado Chapter of Sigma Xi. He was a member of the Phi Delta Theta at Alabama and of Phi Rho Sigma medical fraternity. He is a member of the Tuscaloosa Rotary Club and the First Presbyterian Church.

Dr. Snow is a member of the following societies: American Medical Association, Alabama Medical Association, Southern Medical Association, American Academy of Dermatologists, Alabama Dermatology Society (president two terms) and Tuscaloosa County Medical Society (President in 1958). Dr. Snow has published 17 papers in medical journals.

In 1937, he married Miss Mary Farley Moody Boyles of Tuscaloosa and Mobile and three sons were born to the union: James S. Jr., Farley M. and Richard M. The latter is studying at the University of Alabama as a premedical student. In 1959 Dr. Snow married Miss Bernice Steele of Brent, Ala. and they live in Tuscaloosa.

IV (b)

J. BROWN FARRIOR, JR.

J. Brown Farrior, Jr. was born on December 22, 1911 in Tuscaloosa, Ala. He is the son of J. Brown Farrior and Evelyn Gray (Searcy) Farrior.

He enrolled in the University of Florida where he received the B. S. degree in 1932 and entered the study of medicine at Tulane University the same year. He received the M. D. degree in 1936 and did postgraduate work at the University of Michigan where he received the M. S. degree in 1942.

Dr. Farrior was a resident in Otolaryngology at the Roosevelt Hospital, New York City in 1937-38. The year 1938-39 was spent at the University of Michigan Hospital where he did further training in otolaryngology. He received an appointment as instructor at the School of Medicine, University of Michi-

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gan in 1939 and continued on the teaching staff for the next three years.

Then he received an appointment as Assistant Professor, School of Medicine, Tulane University and held that position until 1948. During that period he served as otologist at the Ochsner Clinic and was on the staff of Charity Hospital, New Orleans, Louisiana.

Since 1948, Dr. J. Brown Farrior has been in private practice of otology at Tampa, Florida. He holds membership in many medical organizations as the following list indicates: the American Medical Association, the Southern Medical Association, the American Cancer Society, the American Laryngology, Rhinol and Otol Society, the American Academy of Ophthalmology and Otolaryngology, the Hillsborough County and the Florida Society of Ophthalmology and Otolaryngology Medical Association. He is a fellow of the American Otological Society and is a Diplomate of the American Board of Otolaryngology.

Dr. Farrior's work has been recognized throughout the country for his contributions to his specialty. He received the First Award of the Southern Medical Association in 1948. He received the Billings Gold Medal of the A. M. A. in 1959. His courses in ear surgery have been presented throughout the country. He is the author of the "Stapes Operations in 3-D," "X-ray Anatomy of the Ear." His bibliography contains more than 50 titles on ear surgery. He is the past president of the Centurior Club of the Deafness Research Foundation, past president of the Otosclerosis Study Group and past president of the Florida Society of Ophthalmology and Otolaryngology.

Dr. Farrior is a member of the Rotary Club, Tampa Yacht and Country Club, Palma Ceia Golf Club and Ye Mystic Krewe of Gasparilla.

Dr. Farrior married Miss Beverly Hall and they have two children, Jay, age 18 and Ann, age 16. Jay (J. Brown Farrior, III) has enrolled at Emory University and plans to study medicine.

IV (c)

RICHARD T. FARRIOR

Richard T. Farrior was born on January 7, 1925 in Tampa, Florida. He is the son of J. Brown Farrior and Evelyn Gray (Searcy) Farrior. He graduated from the H. B. Plant High School in 1942 but had time to earn a football letter. He enrolled at the University of Florida but finished premedical training at the University of Miami. He enrolled in the School of Medicine, Duke University where he received the M. D. degree in 1949.

Dr. Farrior took a surgical internship at the University of Michigan and a residency in otolaryngology and maxillo-facial surgery at the University of Iowa. He served as chief of otolaryngology and maxillo-facial surgery, U. S. Army Hospitals, Munich and Augsberg, Germany. He was consultant for the Southern Reg. Command, U. S. Army, Germany. After his tour of duty in Germany, he accepted a fellowship in plastic and reconstructive surgery with Dr. Claire L. Straith, Detroit. He is in private practice in the Farrior Clinic with his brother, J. Brown Farrior, Jr., Tampa, Fla.

He has been honored by being elected a member or fellow of numerous societies and has taken an active part as an officer or committee member of most of them: American Medical Association, fellow, American College of Surgeons, fellow, American Laryngological, Rhinological and Otological Society, Diplomate, American Board of Otolaryngology (1954), American Society of Facial Plastic and Reconstructive Surgery, Florida Gulf Coast ENT Society (past president), Florida Society of Ophthalmology and Otolaryngology, Florida Medical Association and American Cancer Society.

His schedule of participation at the regular meetings of the above societies and as a guest of other societies is very interesting. He has served at more than 60 meetings where he presented a paper, served as Moderator, presented a scientific exhibit, served as a discussant or was an instructor in one or more courses at several of the as-

signments. His bibliography includes 20 entries.

Dr. Farrior was busy with extracurricular activities while in high school, college and medical school. He was president of the student council in high school, president of the freshman class, the University of Florida, president of the student body at the University of Miami and class president at Duke School of Medicine. He was initiated into Alpha Tau Omega at Florida and Phi Chi at Duke.

He is a member of Rotary International, the Tampa Chamber of Commerce, Palma Ceia Golf and Country Club and Ye Mystic Krewe of Gasparilla.

Dr. Farrior married Miss Betty Jean Bodkin of Glenville, West Virginia on June 9, 1950. Four children have been born to this union: Patricia Ross, September 10, 1952; James Thomas, March 15, 1954; Edward Harris, December, 1955 and Elizabeth Bodkin, August 25, 1961.

V (a)

BATTLE SORSBY SEARCY, III

The fifth generation has produced two physicians and surgeons and there may be one or two more since two more of this generation are taking premedical courses.

Battle Sorsby Searcy, III was born July 1, 1937 in Tuscaloosa, Alabama. He was the grandson of Dr. James T. Searcy.

Young Battle graduated from the Tuscaloosa High School in 1955 and enrolled in the University of the South that fall. He was editor of the campus newspaper at Sewanee his senior year and received the B. S. degree on June 8, 1959.

Battle enrolled at the Medical College of Alabama in September, 1959. He graduated with the M. D. degree on June 2, 1963. He arranged his schedule so that he could spend the last quarter of his senior year as a fellow in medical journalism, Division of Scientific Publication of the American Medical Association, Chicago.

Dr. Battle interned at the School of Medicine, University of Virginia in 1963-64 and accepted a residency in Psychiatry, Veterans Administration Hospital, Birmingham. While on a trip to his brother at Sewanee, Dr. Battle was killed when his automobile collided with a truck in St. Clair County, Alabama, on November 20, 1964. He was buried in Tuscaloosa Memorial Park.

V (b)

ROBERT L. YODER, JR.

Robert L. Yoder, Jr. was born in Tuscaloosa, Alabama, on September 18, 1939. His mother is Anne Fitts Searcy, older daughter of Dr. Harvey Brown Searcy. He attended the local Tuscaloosa High School and entered the University of Alabama in 1957. He received the B. S. degree in 1961 and enrolled in the Medical College of Alabama that fall. The M. D. degree was conferred in May, 1965 and he chose the University Hospital and Hillman Clinic for his internship in 1965-66. At present he is in his first year of residency in general surgery at the University of Alabama Medical Center.

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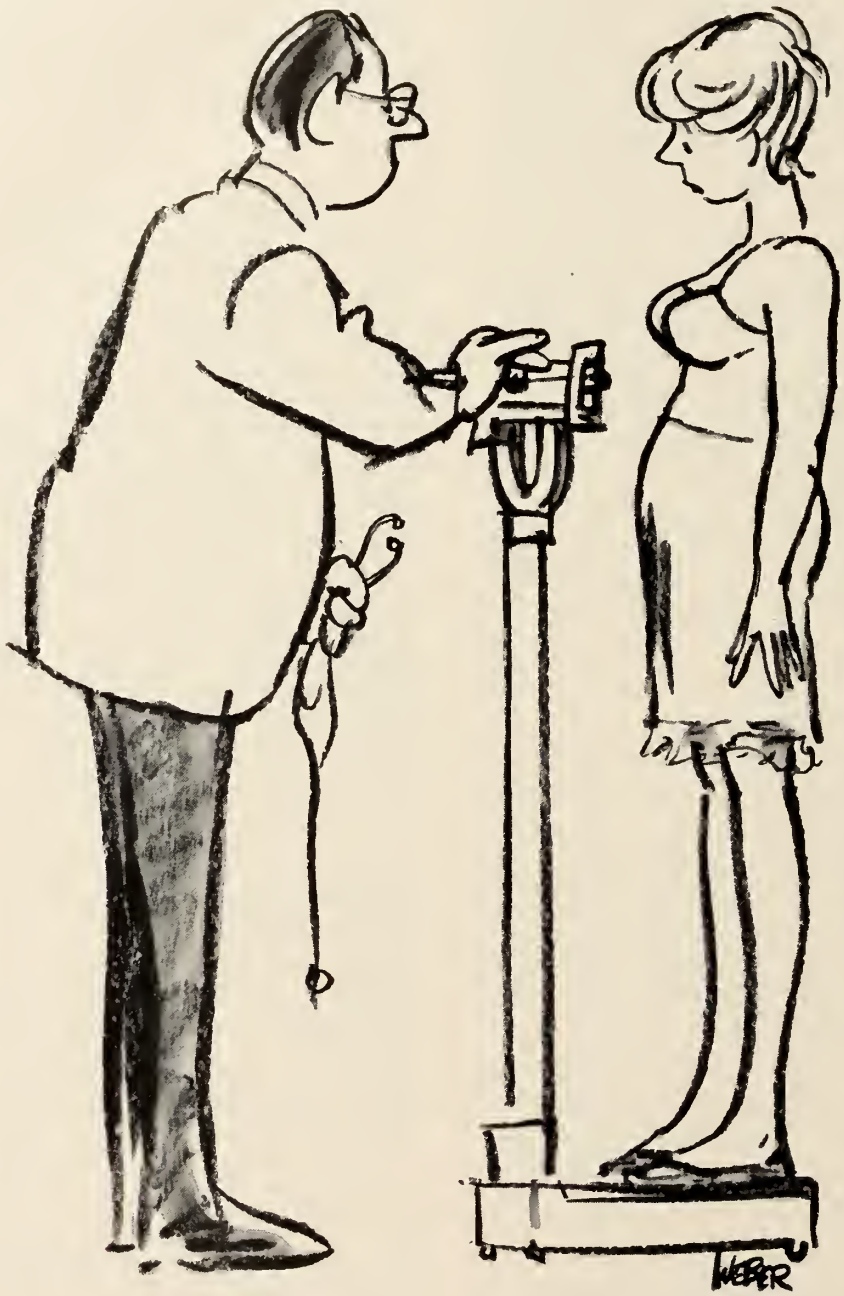
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(Continued on Page 184)



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Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

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Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
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New, Long-term Psychiatric Facility

The new forty bed Parkwood Hospital specializes in long-term treatment of the mentally ill. Under the direction of a Medical Director, the hospital facilities are available to over thirty psychiatrists who are on its staff. Parkwood provides a full complement of exceptional facilities including X-ray, laboratory, pharmacy, occupational and music therapy, patient beauty parlor and an outdoor recreational area. ☐ Special efforts were made to combine maximum patient comfort with a warm, secure, residential atmosphere readily conducive to psychotherapy. ☐ We will be pleased to provide further information upon request.

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PARKWOOD HOSPITAL

1999 Cliff Valley Way, N.E. / Atlanta, Georgia 30329 / Phone 634-5166 (404)

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Two New Programs For Continuing Medical Education

Margaret S. Klapper, M. D., Chairman

Committee on Continuing Medical Education and Hospitals

"The need for continuing medical education of physicians steadily increases, paralleling the complex advances in medicine. The physicians of this Association deserve a program of continuing education second to none." This excerpt from the President's message delivered to the 106th Annual Session of the Medical Association of the State of Alabama by J. O. Finney, M. D. states well one of the objectives of the Committee on Continuing Medical Education and Hospitals. The Committee has pledged itself to work closely with the Division of Continuing Education of the Medical College of Alabama, the Regional Medical Program for Heart, Cancer, and Stroke and to seek additional avenues and innovative methods in the pursuit of this goal.

Two new educational endeavors are being planned in conjunction with the Division of Continuing Medical Education of the Medical College and should be underway within a few weeks. One, a question and answer section will be included in the *Journal* of the Medical Association of the State of Alabama. Questions from physicians may be sent to the MASA office in Montgomery. These will be referred to appropriate individuals at the Medical College of Alabama through the Division of Continuing Medical Education and will be subsequently answered in the *Journal* of the Medical Association of the State of Alabama. Signature of the physician is required but will be omitted from the *Journal* upon request.

Secondly, a roster of physicians with recognized teaching interests and ability will be compiled from the Medical Association of the State of Alabama Roster and the Medical College faculty. Members of the roster will accept a teaching responsibility through the Medical Association and will agree to participate in extramural programs for a specified number of days per year. Details of this program are being evolved by a subcommittee of the Committee on Continuing Medical Education and Hospitals and should be finalized in the near future. Physicians throughout the state who would like to participate are invited to write the committee in care of the central office in Montgomery. This program is being discussed with enthusiasm and has a fine

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potential for teaching and learning between colleagues in the profession.

The Division of Continuing Medical Education at the Medical College heartily endorses these programs and will continue to expand its activities. Programs for the coming academic year are listed below:

Psychiatry--Clinical Experience, (One week or more individually arranged)

Juvenile Diabetes, Camp Seale Harris (Citronelle), August 6-19, 1967

Pediatric Postgraduate Symposium, September 17, 1967

Alabama Diabetes Association Program, September 17, 1967

Psychiatry Seminars (Dr. C. H. Herlihy), (Biweekly evening seminars to be resumed in the fall)

Alumni Homecoming, October 6-7, 1967

Eighth Annual Burn Seminar, October 27-28, 1967

The Practical Aspects of Respiratory Care and Pulmonary Rehabilitation, October 31-November 4, 1967

Dermatology in the Practice of Medicine, January 17, 1968

Otorhinolaryngology in the Practice of Medicine, January 18, 1968

Radioisotopes Training Course, January 29-February 9, 1968

Progress in Obstetrics-Gynecology, February 15-16, 1968

Drugs in the Treatment of Patients, April 11-12, 1968

Rehabilitation Treatment of the Stroke Patient in the Rehabilitation Center and General Hospital, May 2-4, 1968

Alabama Heart Association Annual Meeting, May 15-16, 1968

The atmosphere within which medicine is practiced, the type practice and the expanding volume of medical knowledge all contribute to the complexity of continuing education. It becomes necessary for each physician to exert a concerted effort to schedule for himself ways and means of maintaining his competence. The Medical Association of the State of Alabama and the Division of Continuing Medical Education of the Medical College of Alabama are two avenues dedicated toward working in concert with physicians of the state as an Association, in groups, and individually toward the common goal of the profession—the delivery of good medical care by well trained, knowledgeable and competent individuals.

New Training Film on Emergency Resuscitation Sponsored By Heart Association and Affiliates

"Prescription for Life," a new film designed as a basis for training courses in emergency heart-lung resuscitation, is now available on a rental or sale basis from local Heart Associations or the AHA National Office.

The 16mm, 48-minute color film provides detailed anatomic and physiologic experimental and clinical information covering emergency resuscitation, including airway, breathing, circulation and definitive treatment.

Comparison of Urban and Rural Traffic Deaths

According to the National Safety Council seven out of ten accidental deaths in 1965 occurred in places classified as rural.

A recent report on Emergency Care by the Committee on Trauma of the American College of Surgeons as reported from California by Julian A. Waller, M. D., M. P. H., of the California Department of Public Health, at Berkeley, points out the higher mortality rate in rural accidents as opposed to urban accidents.

Nationally, the majority of traffic fatalities occur in rural areas although the majority of people live in urban areas. In California there are one and one-half times as many traffic injuries per 1,000 population in rural counties as in urban counties. In California for every 100 people injured in rural traffic accidents, there are almost four times as many deaths as there are in the same number of urban traffic accidents.

Some questions raised by these statistics include the following: Are enough urban residents using rural roads so that the large number of injuries per 1,000 population in rural counties can be explained by accidents to urban residents? Are rural accidents basically more severe? Are excessive deaths in rural accidents caused by factors occurring after the accident, such as how quickly the accident is found, the quality of emergency care at the scene of the accident, distance to hospital, etc.?

A study of 800 urban and rural traffic fatalities shows: A third of the victims of rural accidents are urban residents, but only 12 per cent of the victims of urban accidents are rural residents. The anatomic areas injured in urban and rural fatalities are the same, but the injuries resulting in fatality in rural accidents are less severe. Ninety per cent of the people in rural accidents who died within an hour after the accident died at the scene, but 37 per cent of the urban injured who died within an hour were not moved prior to death. Rural accident victims are carried at least twice as far as urban ones and many are carried over 25 miles before death. Many of the rural victims appear to have died of airway obstruction because of face and neck injuries.

The preceding statistics indicate that at least one half to three fourths of the rural deaths need not have occurred, if prompt and adequate first aid and emergency medical services had been available; that skills in maintaining an adequate airway in the presence of both face and chest injuries must be learned by ambulance and law-enforcement personnel; and that it is almost impossible to give competent emergency care on an ambulance trip of several miles if no attendant is present. The rural ambulance operator must have even more immediate-care training and skill than the urban operator because he is with the patient a longer period of time.

Cooperative analysis of accident patterns is needed involving police, medical, and ambulance personnel to determine: (1) Who is first at the scene of the accident. (2) Where unnecessary delays and bottlenecks seem to occur and what are methods for improvement. (3) If there are particular stretches of road with high accident experience where emergency telephones may be installed, and where residents could be taught emergency measures.

We are presently in the process of revising our ambulance code in this State. The purpose of course is to eliminate the hazards mentioned. Consideration even is being given to the possible establishment of helicopter service for extremely isolated areas in the State.

As everyone gets behind the new code we can look for improvement in the over-all accident mortality rate in New York State.

Reprinted from the **New York State Journal of Medicine.**



"George wants to know if it's okay to take his cold medicine now, Doctor, instead of seven o'clock?"

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around the state



The quiet restful mood of the MASA area was broken early one morning by the sound of a bulldozer clearing trees and moving ground for the



construction of the new Rural Electric Association's home to be completed next year.







A crowd of 1,200 participated in the Advertiser-Journal sponsored Medical Forum July 17-18 in Montgomery. Topics covered heart, lung and related diseases, digestive diseases and cancer. A panel of four doctors appeared each night and were lead in a discussion by Dr. B. F. Dorrough. Part of July 18 panel, Dr. A. Zdanis and Dr. David Dunn.



Medical Forum panelists Dr. Richard Harris and Dr. Forest Little.



Lovely Mrs. Bennie R. Hamner, Montgomery, helping to bring the WAMASA mailing list up to date.



At the June Board of Censors meeting, Dr. Robert Parker was presented the Robins Award Plaque by Chairman Dr. John M. Chenault, Decatur.



Dr. Theo Kirkland, Birmingham, President, Alabama Academy of Ophthalmology & Otolaryngology and Dr. Joe Dixon, Birmingham, meet in Montgomery to testify in opposition to Optometric Bills.



Health Education Conference held July 6-7 at Ann Jordan Farm near Alexander City. See related Story page 196.



Pretty Mrs. Cathy Summerlin is the young lady you speak to when you call the central office.

Health Workers Hold Conference

By Catherine G. Lamar

Thirty-two public health workers, volunteer health agency employees, academic health instructors, and those in related fields throughout the southeast convened for a quarterly health educators' conference held July 6-7 at Ann Jordan Farm near Alexander City.

The conference was devoted to a study of behavioral patterns, current developments in the field of health education, and resources available to facilitate the creation of public interest in health and an awareness of public needs.

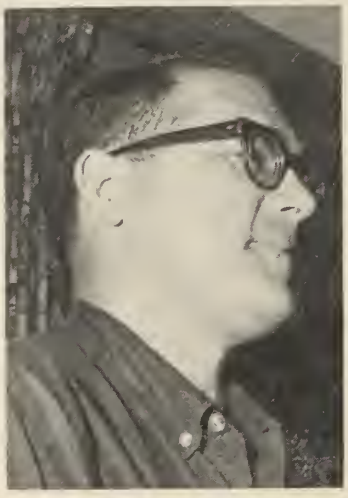
The conference was opened with a business meeting chaired by Drew Ramsay, Chairman, Health Education Section, Alabama Public Health Association.

The group was acquainted with the principles of learning and implications to adult education through a presentation by Mrs. V. Divine Bauer, Coordinator, Student Personnel Services Center for Hospital Continuing Education, University of Alabama. Mrs. Bauer listed the development of the people themselves to the end that they, through their own initiative, may effectively identify and solve the various problems they face as one of the fundamental objectives of adult education. She further commented, "If educators are to provide the channel for self-actualization, they must know how to set up learning experiences and how to recognize them when they occur."

Mrs. Jimmie Goodman, Consultant, Health Education, Alabama State Department of Education reported on the Health Education Curriculum Study currently being conducted in Alabama. The steering committee has completed and drafted a proposal which has been submitted to the federal government for funding. The proposed $126,000 two-year study would allow seven school systems throughout Alabama to include a planned health education curriculum in their course



Mrs. V. D. Bauer



Mr. Drew Ramsay



Mrs. J. Goodman

of study for a year; workshops would follow for the purpose of evaluation.

"Public Health 1966," a completely automatic slide series synchronized with a prerecorded tape, was viewed by conferees. Forest Ludden, Director, Bureau of Primary Prevention, Alabama Department of Public Health, introduced the program which depicted state health department activities during the past year.

Thursday's program was concluded with a panel discussion concerning the continuing education project of Southern Branch, American Public Health Association. Panelists included Fred Hering, Executive Director, Southern Branch; Ron Lester, Television Education Director, Southern Branch; and Forest Ludden. Begun in 1959, the final proposal has been accepted and funded by U. S. Public Health Service. North Carolina, Louisiana, and Alabama have been selected as pilot states in the southeast utilizing the educational television network to provide a course of generalized health instruction for health department staffs as a whole.

This session was followed with a business meeting and committee reports.

"Recruiting for Health Occupations Through Health Education in School and Community" was the topic discussed at Friday's opening session by Dr. Margaret Wrigley, Consultant, Health Occupations, Alabama State Department of Education. She reported on the accelerated advances in medical knowledge in the past few years which will alter future activities of employees in the health field. She cited a definite need in the field of recruitment to acquaint the public with activities of a particular profession or agency in order to attract interest. Furnishing young people with on-the-job training has been one of the most successful outlets for recruiting interested, capable workers, she concluded.

An informative session conducted by

(Next Page)

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Forest Ludden acquainted the group with current proposed health legislation. A question and answer period followed.

The conference was concluded with a discussion of the Medical Literature Analysis & Retrieval System by Miss Dorothy Mueller, Chief Searcher, Alabama MEDLARS Center in Birmingham. This center is an affiliate of the National Library of Medicine in Bethesda, Maryland, and is one of five such centers in the nation. When completed, the Birmingham Center will serve a ten state area. Primary services provided are publication of the recurring bibliography *Index Medicus* and conduction of demand searches for individuals or groups. A computer is programmed to give a print-out of bibliographic information on each demand search. This service is provided to individuals, free of charge, with a valid research problem.

Those attending the conference represented the following agencies: Jefferson County Health Department; Alabama Department of Public Health; Auburn University; University of Alabama; Alabama State Department of Education; Southern Branch, American Public Health Association; American Cancer Society; Food and Drug Administration, New Orleans; Office of Economic Opportunity, Birmingham; Mobile County Health Department; Alabama Tuberculosis Association; and U. S. Public Health Service, Washington.

Social Security Disability Program Simplifies Reporting

George C. Risman, M. D.

The Alabama Disability Determination Office evaluates approximately two thousand medical reports a month in order to process the claims of thirteen hundred Alabama citizens for Social Security Disability Benefits. Attending physicians have been very cooperative and prompt in submitting these reports as well as in replying to secondary questionnaires when further documentation of medical evidence is needed. It is well known that these forms are tedious to complete and require considerable professional time.

A new system has recently been introduced which, it is hoped, will expedite submitting these reports and which will permit more comprehensive medical data to be obtained while simultaneously saving the time of the physician and his assistants. A twenty-four-hour on-call Code-A-Phone has been set up in this Agency into which attending physicians can dictate medical reports by telephone—both local as well as long-distance—on a *collect* basis.

At the present time, telephone reports are being solicited *only* on follow-up cases, cases needing additional medical evidence and reconsideration cases which were initially denied disability benefits. These particular cases can be identified by the presence of an appropriate Code-A-Phone request which is included in each letter. This system has not yet been extended to receive all types of reports because of the large number of them and the technical and secretarial problems that would ensue. However, if the results of this experimental program are sufficiently gratifying, an extension of the service to all types of reports for Social Security Disability Benefits could certainly be considered.

It is the Agency's continued desire to simplify the doctors' work as much as possible while obtaining as comprehensive medical reports as are needed. I sincerely urge all physicians who receive a Code-A-Phone request to use this technique—since its continuation and possible extension depends on demonstrated co-operation.

Dr. Risman is Chief Medical Consultant, Disability Determination Office, State of Alabama.

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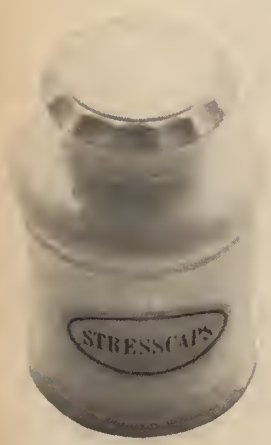
Prescribing Information: Composition: Each white, beveled, compressed tablet contains: Quinine Sulfate 260 mg. and Aminophylline 195 mg. **Contraindication:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.

References: 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et al.: Angiology, 12:102, 1961. 3. Rawls, W., et al.: Med. Times, 87:818, 1959.

6/67 Q-706A



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be important in the management of the alcoholic patient. In alcoholism, as i
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Each capsule contains:

Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

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Doctor-Patient Relationship Highlights AAGP Assembly

What does a man's position in a business organization mean to him, and to his health? How can his role as husband, parent or worker defeat objective medical treatment? Why must today's family doctor diagnose the *man,* as well as his symptoms?

A frank exploration of the doctor-patient relationship is one of the highlights awaiting family doctors attending the 19th Annual Scientific Assembly of the American Academy of General Practice, September 18-21 in Dallas.

The Academy, headquartered in Kansas City, Mo., is the national association of family doctors. It is the second largest national medical association and the largest of medicine's specialty organizations.

The big postgraduate educational meeting, which annually draws some 3,000 family doctors and 10,000 visitors to the convention city, is the second to be held in the Southwestern hub city in ten years and will be the Academy's first meeting in Dallas's Market Hall. The four-day program will feature 26 top speakers on such topics as estrogenic "cycling" of the after-40 woman, the young cardiac, maternal substitutes for the "unmothered" child of the working mother, medicine in the Mekong Delta and sexual aberrations. Doctors will have a chance to view more than 100 scientific exhibits in Market Hall. The scientific program will follow the annual meeting of the Academy's policy-making Congress of Delegates September 16-18 at the Statler-Hilton hotel in Dallas.

Leading off the Monday morning trilogy on the most important relationship in medicine will be nationally-known industrial psychologist Dr. (Ph. D.) Harry Levinson, director of the Division of Industrial Mental Health of the Menninger Foundation, Topeka, Kans., and one of the developers of the nationally-recognized Kansas state hospital system. Dr. Levinson will analyze the patient as he is influenced by his work and his work organization. Dr. (Ph. D.) Martin B. Loeb, director of the School of Social Work at the University of Wisconsin, and Dr. H. H. Garner, chairman of the Psychiatry and Neurology Department at the Chicago Medical School, will complete the exploration with discussions of "The Patient's World" and "The Physician in the Patient's World."

In addition to presentations from the platform of Market Hall, 250 doctors attending this year's Assembly will have an unprecedented chance for personal across-the-table discussion with a featured Assembly speaker or member of the faculty of Southwestern Medical College. Breakfast conferences, accommodating pre-registered participants, will be held Tuesday and Thursday mornings and will be hosted by 25 selected speakers and faculty members. They will feature 1½ hours of unstructured discussion on topics brought up by the participants.

The scientific program also will include the popular "bedside" clinical refresher courses, initiated two years ago at the San Francisco Assembly. The courses this year will be conducted by the faculty of Southwestern Medical College. Held on Monday and Wednesday mornings, each "class" will be open to small groups of pre-registered "students." The courses will cover topics of specific, practical interest to family doctors and will utilize the patients and facilities of seven Dallas hospitals.

On the scientific lecture program Tuesday morning, Dr. Robert N. Rutherford, medical writer and associate clinical professor of obstetrics and gynecology at the University of Washington, will offer up-to-the-minute information on the "Eternal Estrogens" and his frank views on their use to help today's woman remain forever feminine.

A panel investigation on Thursday of "Sexual Aberrations" will be headed by the Academy's Dr. James L. Grobe, chairman of the Mental Health Committee. This 3-man panel also will include Dr. Dana L. Farnsworth, professor of hygiene and director of

University Health Services at Harvard, and Dr. Shervert H. Frazier, professor of psychiatry at Baylor University, psychiatric staff member at three major Houston hospitals and consulting psychiatrist at Rice University. The panel will evaluate deviation in terms of changing moral codes, age, family environment and sexual misinformation. The spontaneous exchange is expected to illuminate such recurring deviations as pain-seeking, impotence, Don Juanism, nymphomania and the Madonna-prostitute complex.

The program lineup also will include a surprising view of a modern enigma, the "unmothered" child, by one of medicine's most sought-after woman lecturers; a first-hand report on Vietnam's medical distress from a San Francisco family doctor volunteer in the AMA's Project Vietnam program, and another lode of Therapeutic Nuggets, the popular Assembly instruction technique initiated in 1951 to provide quick courses in the newest forms of therapy and clinical procedures. The five 10-minute capsulizations will cover topics from "Cardioversion" to "Urethral Catheterization before Hysterectomy."

Assembly-goers also will have an opportunity to take advantage of the success of last year's pilot test of programmed learning machines. Approximately 100 machines containing specially-programmed courses from one to several hours in length will be available in enclosed cubicles adjacent to the exhibit area.

Attendance at the four-day Assembly lecture program offers 14 hours of approved postgraduate credit to Academy members. Academy doctors can accrue a total of 19 or more hours of postgraduate study credit at the Assembly by attending all lectures and the special courses. The Academy is the only national medical organization which requires its members to take postgraduate courses. Each must complete 150 hours of approved postgraduate education every three years.

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Alabama Department of Public Health

LSD WHAT NEXT?

By Catherine G. Lamar

The discovery of an hallucinogenic drug in the early 1940's by a Swiss chemist has in the past few years had a tremendous impact upon today's society.

Prior to this time, most physicians considered the hallucinogenic effects of many drugs to be a form of toxic delirium or an unusual side effect; therefore, this phenomena was not actively investigated. But with the advent and therapeutic success of behavioral drugs such as reserpine and chlorpromazine, the door was thrown open. The climax came with the discovery by the Swiss chemist Albert Hofmann of the curious hallucinogenic effects of lysergic acid diethylamide (LSD 25, or LSD).

Hofmann and Stoll had in 1938 succeeded in synthesizing ergonovine and also, d-LSD. "Pharmacological studies did not reveal anything unusual about the latter compound; it had an oxytocic action similar to that of ergonovine." [1]

While working on the drug (LSD), however, one afternoon Hofmann was seized by peculiar sensations—vertigo, restlessness, optical changes, a dreamlike state, and exaggerated imagination. "Hofmann suspected some relationship between this peculiar state and the drug with which he had been working. He had not intentionally ingested any, but he decided to do so. Using other ergot alkaloids as a guide, he decided to be on the safe side and took only 0.25 mg orally. This is now known to be five to ten times the dose of LSD required to cause disturbances in certain subjects. The reaction he had to such a large dose was quite spectacular. Subsequently, in 1947, Stoll reported the results of a systematic investigation of LSD in human subjects made at the psychiatric clinic of Zurich University in which the original findings of Hofmann were essentially confirmed. Stoll regarded the LSD psychosis as an exogenous toxic reaction."[2]

A report in 1957 by Dr. Humphry Osmond brought LSD into the spotlight. ". . .many

(Continued on Page 206)

ALABAMA LAW
(Special Session, 1966)

Act No. 430 H. 327-Locke, Hawkins

To set controls of Lysergic Acid Diethylamide (LSD-25), Psilocybin or any other drug or compound known as Psycotomimetics; or any similar drug which produces on ingestion an hallucinatory effect, or induces a schizophrenic psychoses; and to set the penalties therefor.

Be It Enacted by the Legislature of Alabama:

Section 1. It shall be unlawful for any person to possess, transport, deliver, sell, offer for sale, barter, or give away in any form whatever in this state, Lysergic Acid Diethylamide (LSD-25), Psilocybin, or any other drug or compound known as Psycotomimetics, or any similar drug which produces on ingestion an hallucinatory effect, or induces a schizophrenic psychoses.

Sick, and worried sick



Professionally posed



Anxiety and tension stemming from organic illness may undermine your patient's cooperation and possibly retard success of primary therapy.

If his emotional symptoms persist in the face of your counsel and reassurance, you may want to consider adjunctive use of SERAX (oxazepam). It is indicated in anxiety, tension, agitation, irritability, and anxiety associated with depression. May be used in a broad range of patients, usually with considerable dosage flexibility.

When prescribing, carefully observe dosage recommendations and appropriate precautions, especially as pertaining to the elderly and when complications could ensue from a fall in blood pressure. (See Wyeth literature or PDR as well as "IN BRIEF" below.)

IN BRIEF.

Contraindications: History of previous hypersensitivity to oxazepam. Oxazepam is not indicated in psychoses.

Precautions: Hypotensive reactions are rare, but use with caution where complications could ensue from a fall in blood pressure, especially in the elderly. Withdrawal symptoms upon discontinuation have been noted in some patients exhibiting drug dependence through chronic overdose. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose; excessive, prolonged use in susceptible patients (alcoholics, ex-addicts, etc.) may result in dependence or habituation. Reduce dosage gradually after prolonged excessive dosage to avoid possible epileptiform seizures. Withdrawal symptoms following abrupt discontinuance are similar to those seen with barbiturates. Caution patients against driving or operating machinery until absence of drowsiness or dizziness is ascertained. Warn patients of possible reduction in alcohol tolerance. Safety for use in pregnancy has not been established.

Not indicated in children under 6 years; absolute dosage for 6- to 12-year-olds not established.

Side Effects: Therapy-interrupting side effects are rare. Transient mild drowsiness is common initially; if persistent, reduce dosage. Dizziness, vertigo and headache have also occurred infrequently; syncope, rarely. Mild paradoxical reactions (excitement, stimulation of affect) are reported in psychiatric patients. Minor diffuse rashes (morbilliform, urticarial and maculopapular) are rare. Nausea, lethargy, edema, slurred speech, tremor and altered libido are rare and generally controllable by dosage reduction. Although rare, leucopenia and hepatic dysfunction including jaundice have been reported during therapy. Periodic blood counts and liver function tests are advised. Ataxia, reported rarely, does not appear related to dose or age. These side reactions, noted with related compounds, are not yet reported: paradoxical excitation with severe rage reactions, hallucinations, menstrual irregularities, change in EEG pattern, blood dyscrasias (including agranulocytosis), blurred vision, diplopia, incontinence, stupor, disorientation, fever and euphoria.

Availability: Capsules of 10,15 and 30 mg. oxazepam.

To help you relieve anxiety and tension

Serax® (oxazepam)

Wyeth® SERVICE TO MEDICINE

Wyeth Laboratories
Philadelphia, Pa.

(Continued from Page 203)

subjects who receive the drug experience unusually vivid, insightful, and happy experiences from which they derive much understanding of themselves, others, and their relation to the cosmos. LSD. . .is useful when given for the following purposes:

1. As an aid to psychotherapy and psychoanalysis.

2. To educate workers in psychology and psychiatry in the strange ways of the mind.

3. To explore the normal mind in unusual circumstances.

4. To examine the social, religious, and philosophical implications of the drug itself and of related agents.

To bring the attention of the profession and the laity to these possibilities he coined the word *psychedelic*, which he defined as follows: 'A psychedelic compound is one like LSD or mescaline which enriches the mind and enlarges the vision.'" [3]

"LSD is an amine alkaloid resembling ergonovine and has an oxytocic action comparable to the latter drug. Unlike the amino acid alkaloids of ergot (e. g. ergotamine), it produces only slight vasoconstriction." [4] Although originally synthesized by Hofmann, the drug is now known to occur naturally in a number of plants. For centuries the Aztecs used a woody South American vine, Rivea corymbosa. In Mexico today, some Indian tribes ingest certain mushrooms as a part of their religious rites. Recent studies show that this hallucination-producing genus contains the alkaloids psilocybin and psitocin. Indians in Mexico and also in the American Southwest use an hallucinogenic cactus plant (peyote) containing mescaline. Certain varieties of the common morning glory, a relative of Rivea, are also known to contain significant amounts of the drug.

In the past few years, reports of illegal or illicit use of the drug have grown. The *Medical World News* reported in the April, 1966 issue: "Reports to the Food and Drug Administration during the past year have indicated a marked increase in the illegal use of both hallucinogenic and stimulant drugs throughout the U. S. particularly on and around college campuses." [5]

Factors contributing to this growth have been the organization of the Neo-American Church, the special appeal of LSD to the "intellectual," and the relative ease with which the drug can be manufactured.

Timothy Leary, the controversial LSD pioneer and founder of the Neo-American Church, set forth the principle governing the church's use of the drug: "To learn how to use your head, you have to go out of your mind." [6]

Timothy Leary is claimed by his followers as a spiritual leader of mankind. They considered him to be the first man in the West to recognize the spiritual importance of the psychedelic experience and to utilize this principle as a spiritual right. His writings constitute the gospel and liturgy of the church.

Although the Neo-American Church has no specific doctrine, followers share an agreement on three principles:

"1. The principle of freedom of consciousness expansion for everyone.

2. The principle of not identifying psychedelic substances (such as LSD) as drugs but rather as holy or divine substances.

3. The principle of not administering or giving the sacraments to people who are unprepared for them." [7]

Several factors contribute to LSD's appeal to a segment of the intellectual group. One of the most important reasons may be that there is presently no evidence of physical dependence either during or after use, as with alcohol or a narcotic.

"Bootleg manufacturers can synthesize LSD from lysergic acid amide with relatively crude equipment and a fairly good knowledge of chemistry . . . The more sophisticated clandestine producer can achieve better yields when a trained chemist uses suitable equipment and facilities. The chemicals used by bootleggers . . . are: lysergic acid

amide, acetonitrile, trifluoroacetic anhydride, diethylamine, and chloroform. Equipment includes: a hood or improvised ventilation; a vacuum system, as a simple water aspirator; a means of heating materials, as a steam bath or a double boiler; a means of cooling materials to -20 degrees Centigrade, as ice cream salt and ice; and a variety of glassware, as flasks and funnels." [8]

So alarming has been the increased use of this drug that a bureau within the Food and Drug Administration, Department of Health, Education and Welfare, was created to carry out new federal drug abuse amendments. This bureau was named the Bureau of Drug Abuse Control (BDAC). Emphasis is on education—then enforcement, instead of the accepted practice of the reverse. Montgomery, Alabama, has been selected as the site for a resident field office of the BDAC. Opened in July, it is staffed by one agent.

The dangers of this drug are becoming increasingly evident. Almost daily, papers throughout the country report tragedies resulting from use of LSD. This is not a situation confined to the West Coast. Approximately 250 miles from Montgomery, a Neo-American movement is already organized. Only last year, the New York County Medical Society called upon the state to enact harsher penalties for distribution of LSD which a spokesman described: "the most dangerous drug on the illicit market—more dangerous than heroin because a single use may cause permanent personality derangement." [9]

The most appropriate conclusion to this article can only be drawn from the words of the February, 1967, issue of *The Crier*.

"It is evident that a great deal of drug abuse is caused by ignorance of its effects and dangers; by the desire of young people to seek new thrills and follow the leader of their group; by the inability of or unwillingness of adults to face their own failures and short-comings; by criminal elements who exploit the weaknesses of their fellow men. The battle against drug abuse therefore must include traditional law enforcement methods as well as major educational efforts directed at all people, from the high school and college level to adult groups in all strata of society." [10]

1. *The Pharmacological Basis of Therapeutics*, ed. Louis S. Goodman and Alfred Gilman (New York: Macmillan, 1965), p. 205.

2. Ibid, p. 206.

3. Joseph R. Di Palma, M. D., "LSD: its use and abuse", *RN*, Vol. 28 (July 1965), p. 59.

4. Goodman and Gilman, p. 206.

5. "Medical Officials Stress that Dangers of LSD are no Illusion," *Medical World News*, Vol. 7 (April 22, 1966), p. 60.

6. Arthur J. Kleps and R. E. Miles, "With LSD I Saw God," *Pageant*, Vol. 22 (Aug. 1966), p. 60.

7. Ibid.

8. *The BDAC Bulletin*, Jan. 1967, p. 1.

9. "Medical Officials Stress that Dangers of LSD are No Illusion", p. 60.

10. "The Chemical Curtain," *The Crier*, Vol. III (Feb. 1967), p. 4.

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1967

	May	June	*E. E. June
Tuberculosis	130	100	121
Syphilis	134	121	154
Gonorrhea	336	519	310
Chancroid	1	2	3
Typhoid fever	0	2	1
Undulant fever	0	2	0
Amebic dysentery	0	1	3
Scarlet fever & strep. throat	438	369	61
Diphtheria	0	0	1
Whooping cough	12	5	10
Meningitis	6	9	5
Tularemia	0	0	0
Tetanus	0	2	1
Poliomyelitis	0	0	0
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	292	84	351
Chickenpox	42	23	43
Mumps	105	96	28
Infectious hepatitis	25	11	34
Typhus fever	0	0	0
Malaria	0	0	0
Cancer	393	485	624
Pellagra	1	0	0
Rheumatic fever	7	17	14
Rheumatic heart	18	21	24
Influenza	55	35	30
Pneumonia	245	233	167
Rabies—Human cases	0	0	0
Pos. animal heads	0	3	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

Bureau of Vital Statistics

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

APRIL 1967

Live Births Deaths Causes of Death	Number Registered During April 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	4,753	3,134	1,619	16.2	17.8	17.8
Deaths	2,512	1,702	810	8.6	9.5	9.1
Fetal Deaths	91	46	45	18.8	22.0	24.3
Infant Deaths						
under one month	91	54	37	19.1	17.4	21.4
under one year	128	67	61	26.9	29.6	31.0
Maternal Deaths	5	3	2	10.3	7.6	1.9
Causes of Death						
Tuberculosis, 001-019	19	10	9	6.5	6.6	6.6
Syphilis, 020-029	2	1	1	0.7	1.4	0.7
Dysentery, 045-048					0.7	0.3
Diphtheria, 055						
Whooping cough, 056						
Meningococcal infections, 057	3	2	1	1.0	0.3	0.7
Poliomyelitis, 080, 081						
Measles, 085	3	2	1	1.0		
Malignant neoplasms, 140-205	359	252	107	122.6	119.2	119.9
Diabetes mellitus, 260	42	26	16	14.3	20.7	16.1
Pellagra, 281						
Vascular lesions of central nervous system, 330-334	329	217	112	112.3	126.4	120.6
Rheumatic fever, 400-402						0.3
Diseases of the heart, 410-443	847	636	211	289.2	337.2	302.7
Hypertension with heart disease, 440-443	101	51	50	34.4	46.3	41.2
Diseases of the arteries, 450-456	71	46	25	24.2	21.8	23.8
Influenza, 480-483	3	1	2	1.0	3.8	4.2
Pneumonia, all forms, 490-493	61	37	24	20.8	33.2	33.2
Bronchitis, 500-502	5	5		1.7	4.5	1.7
Appendicitis, 550-553	1	1		0.3	1.7	0.7
Intestinal obstruction and hernia, 560, 561, 570	10	7	3	3.4	3.1	5.2
Gastro-enteritis and colitis, under 2, 571.0, 764	4	1	3	1.4	1.4	1.0
Cirrhosis of liver, 581	18	16	2	6.1	4.5	6.3
Diseases of pregnancy and childbirth, 640-689	5	3	2	10.3	7.6	1.9
Congenital malformations, 750-759	27	18	9	5.7	6.4	3.9
Immaturity at birth, 774-776	22	8	14	4.6	4.6	6.9
Accidents, total, 800-962	200	147	53	68.3	58.7	60.8
Motor vehicle accidents, 810-835, 960	100	79	21	34.1	27.3	31.5
All other defined causes	345	208	137	117.8	133.4	132.5
Ill-defined and unknown causes, 780-793, 795	136	58	78	46.4	52.9	53.5

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population



Last year, Alabama BLUE SHIELD paid $9½ million in doctor bills for its members

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph. D., Director

JUNE 1967

Examination for intestinal parasites	1,788
Examination for malaria	3
Salmonella & Shigella (blood-feces-urine-food)	372
Examination for tubercle bacilli	4,690
Examination for gonococci	2,236
Serological test for Syphilis	32,033
FTA	56
Darkfield	3
Brucella	1
General Bacteriology (cultures for isolation and confirmation)	35
Staphylococcus (cultures for isolation and confirmation)	169
Examinations for diphtheria	12
Streptococci examinations	1,780
Mycology	24
Agglutinations	13
Vincent's infection	4
Complement fixation tests	159
Test for Phenylketonuria (PKU)	6,056
Cytology	845
Water examinations	4,232
Milk and dairy products examinations	4,758
Sea food examinations	150
Examination for Negri bodies (smears & animal inoculation)	508
Virology	10
Rh Factor bloods	720
Miscellaneous	547
TOTAL	61,204

New School of Nursing Assured

Construction of a new School of Nursing teaching facility at the University of Alabama in Birmingham has been assured by an award of $1,144,296 from the United States Public Health Service. Senators Lister Hill and John Sparkman of Alabama announced the award. The grant was made under provisions of the Nurses Training Act of 1964, authored by Senator Hill.

The University of Alabama will provide matching funds for construction of the facility to be built at a total cost of approximately $2,000,000.

The University of Alabama School of Nursing, which was established in 1950, presently is located on the Tuscaloosa campus of the University, however, the nursing students have had a major part of their clinical experiences at the Medical Center in Birmingham. This fall, the School of Nursing degree program, offering both undergraduate and graduate education, will be moved to the UAB campus. Phasing out of the University Hospital School of Nursing Diploma Program was begun in September, 1966, the last class being admitted at that time.

Of major importance, the construction will allow the University to increase the number of nursing students from approximately 275 at the present time to almost 500 by 1970. The school will be a component part of the University of Alabama in Birmingham, along with the Medical College, the School of Dentistry, the School of Health Services Administration, and the College of General Studies.

The building will be located on 17th Street and 8th Avenue, South, adjacent to the present nurses residence. It will have a gross square footage of approximately 53,000 square feet. Teaching areas will be located on the ground floor which forms the base for a four story tower in which will be housed administrative offices and faculty offices. The structure conforms to the architectural development plan for other new buildings at the University of Alabama in Birmingham, providing separation between pedestrian and vehicular traffic. The tower will be structured for one additional floor for faculty expansion, while the teaching floor will be expandable to the east.

The new School of Nursing Building will bring the major elements of the nursing curriculum into a central location. The school's proximity to other new instructional and library facilities of the Medical Center will encourage a mutual exchange of information among students and faculty members of other health programs. such as medicine, dentistry and the allied health professions. It is envisioned that the school will utilize many Medical Center facilities, such as departmental specialty equipment and the Computer Research Laboratory. The latter will serve an important function in graduate student research as well as faculty research concerned with improved nursing service and education.

Dr. Joseph F. Volker, vice president for Birmingham Affairs and Dr. Florence Hixon, dean of the School of Nursing, said the building will be equipped with the latest teaching innovations, such as individual carrells in which each student may pursue her studies, in order to encourage self-directive learning.

"We are primarily interested in preparing students to assume positions of leadership in nursing, after they have received a sound clinical experience," Dean Hixon said.

Large Heart Grant Goes To Center

The Medical Center of the University of Alabama in Birmingham has been awarded $2,100,218 for the first twenty month period of a program project grant for research in cardiovascular diseases. The grant, which was announced by Senators Lister Hill and John Sparkman, is one of the largest ever made by the National Heart Institute, and it is anticipated that the Center will receive a total of $4,877,821 over a five year period for the project, plus indirect costs.

Dr. T. Joseph Reeves, professor of medicine and Alabama Heart Professor for Cardiovascular Research, is director of the project, and also is director of the University's Research and Training Center in Cardiovascular Diseases. Co-directors of the new program project are Dr. John W. Kirklin, Kerner Professor and Chairman of the Department of Surgery, and Dr. Harold Dodge, professor of medicine and director of the Division of Cardiology.

The huge grant is primarily intended to bring together those scientific disciplines which are extensively committed to cardiovascular research. Many departments and units—Medicine, Surgery, Pediatrics, Biochemistry, Physiology, and Biophysics, Biomedical Engineering, Biomathematics, Biostatistics, and Computer Sciences—will be involved in the Medical Center's comprehensive effort to combat the group of diseases which are responsible for 50% of all deaths in the United States.

According to Dr. Reeves, the funds will provide for much-needed research personnel and equipment. The coordinated program will allow more efficient utilization of costly equipment and facilities. Fourteen individual research units receiving support through the grant will utilize seven designated "core" facilities, such as a Digital Computer, which interchanges electrical impulses reflecting the activity of the heart to numerical language for computerization, an Animal Heart Catheterization and Radiographic Laboratory, a Gas Analysis and Biochemistry Laboratory, an Electronic Laboratory, and a Hospital Bed Unit for research studies.

The research program is being undertaken by the Medical Center's recognized cardiovascular team who represent a wide variety of skills in special areas from the most basic levels to clinical investigations in research laboratories, the operating room and at the bedside of patients with cardiovascular diseases.

"This program project grant is viewed as providing a mechanism for bringing these individual investigators and their research activities more closely together and to permit closer cooperation of individual investigators in research on major physiologic problems as well as problems presented by the ill patients," Dr. Reeves said.

"Much of the work is a logical extension of previous individual effort which has proven fruitful; there is every hope that this collaborative work will contribute much toward the understanding and alleviation of circulatory diseases," he added.

Dr. Joseph Volker, vice president for Birmingham Affairs and Director of the Medical Center said, "The University regards this program project as a significant step toward the development of one of the nation's major Cardiovascular Research and Training Centers of the National Heart Institute."

The Medical Center's cardiovascular program, initiated by Dr. Tinsley R. Harrison and the late Dr. Champ Lyons has evolved over a period of 16 years and has attracted many distinguished scientists from throughout the United States and abroad. Three outstanding individuals most recently joining the team were Dr. Kirklin, formerly professor and chairman of the Department of Surgery of Mayo Clinic, Dr. Dodge, formerly professor of Medicine at the University of Washington School of Medicine in Seattle,

and Dr. Donald McDonald, formerly of the University of London, Medical College of St. Bartholomew's Hospital, and later, The Presbyterian Hospital of the University of Pennsylvania, where he was a Senior Research Associate.

Dr. Volker said the cardiovascular activities had always received strong support from the administration of the Medical Center and the "contributions made by this team of physicians and scientists are a source of pride to the University and the entire state."

Blue Shield Surveys Medicare's First Year

"Medicare Year-One" is now history.

The first year of Medicare was a trying, exhausting period for the 33 Blue Shield Plans serving as carriers for 60 per cent—approximately 10 million—of the Part B recipients.

Part B is the voluntary medical-surgical portion of the Medicare law. For $3 per month—which the government matches—an individual over 65 could volunteer to participate. Some 17 million aged—over 93 per cent of those eligible—purchased Part B coverage.

About 25 million bills—now running at 700,000 per week—were submitted to all Part B carriers during the first year. The dollar volume paid was $640 million.

The Blue Shield carriers indicated that Medicare started slowly, with relatively small numbers of bills last July and August. However, by September and October, most carriers found themselves innundated.

Part B includes a $50 deductible and 20 per cent coinsurance with records maintained at Social Security headquarters in Baltimore.

The tight labor market, shortage of qualified electronic data processing personnel, restrictive governmental regulations, and the necessity to query SSA headquarters in Baltimore on each claim soon led to a large inventory of unpaid bills.

Some Plans reported that in the early stages about half of the claims fell into the "hard-to-process" category. Primarily, these were improperly filled out.

Emergency procedures were quickly instituted and a massive assault on the flood of claims was launched.

Thomas C. Paton, president of California Blue Shield, where the claim load jumped from 5,000 to 95,000 per day with Part B and Title 19—the portion of the Medicare law providing for the indigent and medically indigent—said:

"California Blue Shield now is paying most Medicare claims within three weeks. At one point, we were months behind with the number of current claims increasing daily.

"The backlog has been eliminated," Paton continued, "and with further refinements and additions of computer time, it is expected that those Medicare claims received in good order, with no problems involving charges or utilization, will be paid within ten days."

California Blue Shield has the greatest number of Part B claims—14,000 daily.

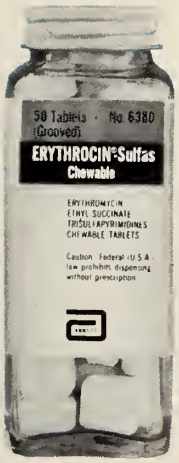
Since the beginning of the program, New York City Blue Shield has received 1,291,731 bills and paid approximately $41 million to beneficiaries.

In Florida, incoming claims have jumped from 50,000 in January to 150,000 in June. Florida Blue Shield achieved its breakthrough to faster claim payments in May when the Plan paid just under $7 million in claims.



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New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

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Scholarships Aplenty

The field of health offers unlimited opportunities for interesting, exciting, and gratifying careers. It is estimated that we may lose about 600,000 young people—potential for health careers—who will not complete or go beyond high school this year. Of these, one-third are quitting because of lack of funds. A U. S. Office of Education poll of 2,115 institutions reveals that 320,085 scholarships worth $130,351,256 are available to assist students in college. Total sources in scholarships, loans, and part time jobs to help students annually have been estimated through the American Legion's Education and Scholarships Program to be in excess of two billion dollars. Knowledge of the financial assistance available might encourage young people to continue their education. Here are some suggestions adults might make to the students they counsel:

- Plan for a vocation as early as possible, seek help in the courses of study required, and talk or work with people who are active in the career chosen.

- Select a college or vocational school and write to the Admissions officer to determine the scholastic standards required and the possibility of qualifying for a scholarship.

- Learn to study, to earn good grades.

- Become a well-rounded individual. Develop hobbies and participate in school, community, and church activities. Broaden fields of interest through reading and contacts with people.

- Early in the junior year learn about college acceptance requirements and prepare for scholarship application. Following are some health careers and the requirements for them:

Vocation	Nature of the Work	Employment	Need and Advancement	Financial Reward
Dietitian	A dietitian organizes and manages all phases of food production and service and sees that people receive food which is attractive, satisfying, and healthful.	Hospitals, clinics, schools, colleges, universities, industrial plants, public health departments, public agencies, and so forth.	There is an urgent need for competent dietitians. Advancement opportunities are excellent.	$5,000 to $15,000 per year average; considerably more for outstanding person in certain specialty fields.
Health Information Specialist	Serves as a connecting link between his organization and the public, reporting news developments and factual information. Uses every kind of general news media—leaflets and other publications, newspapers, magazines, and often radio, television, exhibits, slides, and motion pictures. Works closely with the organization's executive and other members of the staff.	Practically every large health institution, public and private, national, state, and local employ health information specialists.	Field is wide open with advancement to top information positions with administrative duties.	$5,000 to $8,000 per year and sometimes more for top information positions. Salaries depend on kind of organization, size, location, and scope.

(Reprinted from *The Indiana State Board of Health Bulletin*, October 1966).

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HOSPITAL
BIRMINGHAM, ALABAMA



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—John W. Gardner, secretary of Health, Education and Welfare, called on the medical profession and others in the health field to "search for new and less expensive ways of doing things."

This was the main theme of his talk at the windup session of a two-day National Conference on Medical Costs attended by 300 physicians, hospital administrators and other leaders in the various aspects of health care. He said the conference discussions "reflected a universal recognition that change is necessary."

"We cannot go on as we have in the past," Gardner said. "New patterns will be necessary. Those who entertain some apprehension as to what the new patterns will be had better plunge in and experiment with their own preferred solutions . . . Standing back and condemning the solutions that others devise won't stem the tide of change . . .

". . . there is not yet any agreement as to what a more perfect system would look like. It seems likely that we will go through a period of experimentation and in true American fashion may end up with several variations in different parts of the country, suiting local preferences and conditions.

"Whether the health care system of the future should develop around the hospital as an organizational focus, or around the payment mechanism, or around group practice plans, or around all of these in some sort of collaboration with State health planning councils—or whether other variants will emerge—is still a wide-open question . . .

"Essentially . . . the challenge is before the health profession. They must join the search for solutions. They must be willing to re-examine and overhaul long-established practices. The search for new and better and less expensive ways of doing things must be carried on by hospitals, medical schools, community agencies, and by the thousands of individual physicians serving the health needs of people . . ."

Acceptance of such responsibility by those in the private sector, Gardner said, "is the best insurance against the government having to shoulder more than its share of corrective measures."

Citing appointment of an advisory committee to study hospital effectiveness, Gardner said that HEW will do its part in the search for more efficient practices. The committee is to report by the end of this year.

Dr. Milford O. Rouse, president of the AMA, commended the Administration "for showing its concern for rising health care costs by calling a national conference on the problem.

"The American Medical Association and its member physicians pledge to accept their responsibilities in finding solutions to this vital problem," he said. "We expect that other full members of the health team—dentists, hospitals, nurses, pharmacists and pharmaceutical companies, the insurance industry and others—will do likewise.

"We hope the Administration will also accept its responsibility to find ways to ease the burden of inflation which contributes substantially to inflating the cost of medical care. We hope the Administration will call a moratorium on new health legislation until existing programs can be critically evaluated

to eliminate overlapping and duplication and to achieve maximum conservation of tax funds. We hope available tax money, particularly in the health field, can be used to help those who really need help while allowing our more fortunate citizens to accept responsibility for their own care."

* * *

Congress passed and President Johnson signed into law a bill that extends the program of grants for the construction of community health centers for three years (until June 30, 1967.)

It authorizes the appropriations of $50 million for fiscal year 1968 and $70 million for 1970.

The amended law also extends the program of grants for the initial staffing of community mental health centers for an additional two years (until 1970) and authorizes the appropriation of $26 million for fiscal 1969 and $32 million for fiscal 1970. An appropriation of $30 million already was authorized for fiscal 1968.

* * *

President Johnson signed into law legislation extending the draft for four years. It includes a provision continuing special pay for physicians and dentists.

The new law also continues the authority to defer medical students until completion of internship. In the future, foreign physicians in this country will be liable to draft up to age 35—the same as for Americans. Under the old law, foreign physicians were exempt from age 26.

The present blanket military exemption for Public Health Service officers serving on loan to other agencies such as Food and Drug Administration was removed despite protests by the agencies involved. Such assignments with draft exemption can now be made only to the Coast Guard, Bureau of Prisons and Environmental Services Administration. The American Medical Association had asked Congress to allow no draft exemptions for non-military service.

* * *

The President of the American Medical Association said that Sargent Shriver, Director of the Office of Economic Opportunity, was in error when he accused the AMA of being opposed to medical care for the poor because the AMA is opposed to the OEO's slum health care centers.

Milford O. Rouse, M. D., Dallas, Texas, the AMA president said the AMA is opposed to the OEO projects because the health care problems in the slums can be taken care of under existing programs, particularly Medicaid.

"There is already too much proliferation of wasteful, overlapping federal health programs," Dr. Rouse said.

"Also of concern to physicians is the fact that at times it seems that government is too quick to set up health care programs without consulting with those who know most about health care—physicians."

The AMA president also said Shriver was misinformed about AMA's position on helping those who need help.

"I am now and always have been in full accord with AMA's long-standing position that those who need help in financing health care should receive it," Dr. Rouse said.

"The AMA, however, is opposed to the doling out of tax funds to the wealthy and well-to-do. The expenditure of public funds for those who can well afford to finance their own health care limits the amount of resources available to those who do need it. Such a policy cannot be justified morally or economically."

"WANTED: Internist to associate with well established internist in Miami, Florida. Terms open. Write Lawson C. Johnson, M. D., 3298 Mary Street, Miami, Florida 33133.

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. For further information: write Mr. Emmett Wyatt, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104 or Phone 263-6441.

Locations Wanted

General Practice—

Age 43; Medical College of Alabama 1967; seeking associate practice in town of 12,000 plus population in central or south Alabama. Available July 1968. LW-21

Age 28; University of Missouri 1965; seeking group or associate practice. Available July 1968. LW-22

Age 31; Medical College of Alabama 1962; seeking associate practice. Available August 1967. LW-23 & 24

Age 31; single; University of Tennessee 1964; seeking group, associate, or solo practice. Available immediately. LW-25

Age 34; Medical College of Alabama 1958; seeking associate practice. Available immediately. LW-26

Age 40; Medical College of South Carolina 1955; seeking combination general practice and surgery, also student health. Available immediately. LW-27

Age 44; Vanderbilt 1946; seeking associate or industrial practice. Available immediately. LW-28

Age 29; Albert Einstein College of Medicine 1964; seeking group practice. Available October 1967. LW-29

Age 41; Medical College of Alabama 1963; seeking solo, group, or associate practice. Available immediately. LW-30

Age 29; University of Mississippi 1963; National Board; seeking associate practice. Available immediately. LW-31

Age 52; Ohio State University 1943; Certified American Board; seeking solo, industrial, associate or institutional practice. Available immediately. LW-32

Age 32; Louisiana State University 1961; seeking associate practice. Available immediately. LW-33

Age 27; single; University of Tennessee 1965; seeking solo, group, or associate practice. Available immediately. LW-34

Age 50; Queens Ontario Medical School 1943; National Board; seeking group, associate, or clinical research. Available immediately. LW-35

Age 28; single; Medical College of Alabama 1966; seeking practice in town of less than 14.000 population to fulfill scholarship requirements. Available 1968. LW-36

Age 42; University of Tennessee 1954; Certified American Board; seeking associate practice (interested in general practice and surgery). Available immediately. LW-37

Age 31; University of Arkansas 1961; seeking solo or associate practice. Available immediately. LW-38

Age 36; Tulane Medical School; Board eligible; seeking group or associate practice. Available immediately. LW-39

Allergy-Internal Medicine—

Age 48; St. Louis Univ. Med. Coll. 1944; seeking group, industrial, or institutional practice. Available September 1967. LW-40

Internal Medicine-Cardiology—

Age 36; Emory University 1963; Board eligible; seeking solo, group, or associate practice. Available September 1967. LW-41

Internal Medicine—

Age 34; University of Tennessee 1958; Certified American Board; Seeking group, industrial, associate, or academic position. Available mid-1968. LW-42

Neurosurgery—

Age 35; Medical College of Alabama 1962; Board eligible; seeking solo, or associate practice. Available January 1968. LW-43

Obstetrics-Gynecology—

Age 35; Medical College of Alabama 1957; seeking associate practice in town of 10,000 plus population. Available July 1968. LW-44

Age 33; West Virginia University 1963; Board eligible; seeking group or associate practice. Available July 1968. LW-45

Age 32; Tulane University 1961; seeking group or associate practice. Available January 1968. LW-46

Age 34; Univ. of Miami Sch. of Med. 1960; Board eligible; seeking group or associate practice. Available September 1968. LW-47

Orthopedics—

Age 33; Univ. Texas 1958; Board eligible; seeking solo, group, or associate practice. Available October 1967. LW-48

Age 32; Vanderbilt University 1960; seeking solo or associate practice. Available November 1967. LW-49

LOCATIONS WANTED (Continued)

Pediatric Cardiology—

Age 40; Univ. of Cincinnati 1956; Certified American Boards; seeking practice in south Alabama. Available January 1968. LW-50

Surgeon—

Age 33; Vanderbilt 1963; completing general surgical residency; seeking associate or group practice, preferably in city of over 25,000 population in northern section of state. Available immediately. LW-51

Urology—

Age 29; Downstate Med. Center, Brooklyn 1961; Board eligible; National Board; seeking solo, group, or associate practice. Available June 1968. LW-52

Age 33; Emory University 1960; National Board; seeking group or associate practice. Available July 1968. LW-53

Physicians Wanted

Anesthesiologist—

250-bed hospital in North Alabama seeking anesthesiologist to head the department. PW-21

General Practitioners—

For associate practice in city of 6,000 population in population center of over 10,000 located in East-central Alabama. PW-22

For solo practice in county clinic located in East-central Alabama. Office, equipment and housing available. 70-bed Hill-Burton hospital and 22-bed nursing home. PW-23

For group practice in town of 7,500 population in North Alabama. PW-24

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-25

For town of approximately 1,000 population in population center of approximately 10,000. Located in Southwest Alabama within 90 miles of the Gulf Coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-26

For associate practice in city of 35,000 population located in Northeast Alabama. Interest in surgery is also desirable. PW-27

PHYSICIANS WANTED (Continued)

Opportunity in city of 25,000 population located in Southeast Alabama within less than 100 miles of the Gulf Coast. Offices available in a medical center complex adjacent to large hospital. PW-28

Opportunity for one or more g. p.'s in city of approximately 8,000 population located in Northeast Alabama. Fully equipped clinic available. PW-29

Opportunity in a port town of 1,000 plus population in population center of 10,000 located in Southeast Alabama. Clinic available. Hospital located less than 20 miles away. Recreational advantages for water sports. Expanding industrial and farming area. Churches and schools. PW-30

Opportunity in town of 1,500 population combined with adjoining town of 1,200 in population center of 14,500, located in central Alabama, approximately halfway between Birmingham and Montgomery. Clinic available rent free. Hill-Burton hospital-nursing home is located within a distance of 12 miles. Expanding industrial and agricultural area. Recreational advantages for water sports nearby. Churches and schools. A state college is located nearby. PW-31

General Practitioner-Obstetrician—

Opportunity for physician in city of 15,000-20,000 population located in Southeast Alabama in college town. Interest in surgery is also desirable. PW-32

General Practitioner-Surgeon—

For associate practice in four-man clinic in town of 7,500 population in 25,000 population center in Northwest Alabama. 75-bed accredited hospital. PW-33

General Practitioner or Internist—

For partnership or associate. Excellent location, fully equipped office in city of 12,000 population. 130-bed accredited hospital. Possibility for larger clinic group. PW-34

Student Health—

Full time salaried position of assistant director on staff of four. 65-bed well equipped infirmary with adequate office space. Excellent laboratory and x-ray facilities. Liberal fringe benefits. PW-35

New 75-bed facility to be occupied in late 1968. Present staff of seven full time physicians. Seeking one additional physician for fall 1967 and two (one as a replacement) for fall 1968. Salary negotiable. Appointments are full time with regular University benefits. PW-36

Surgeon—

For partnership with a Board surgeon and Fellow, A. C. S., located in city of 30,000 population in North Alabama. PW-37

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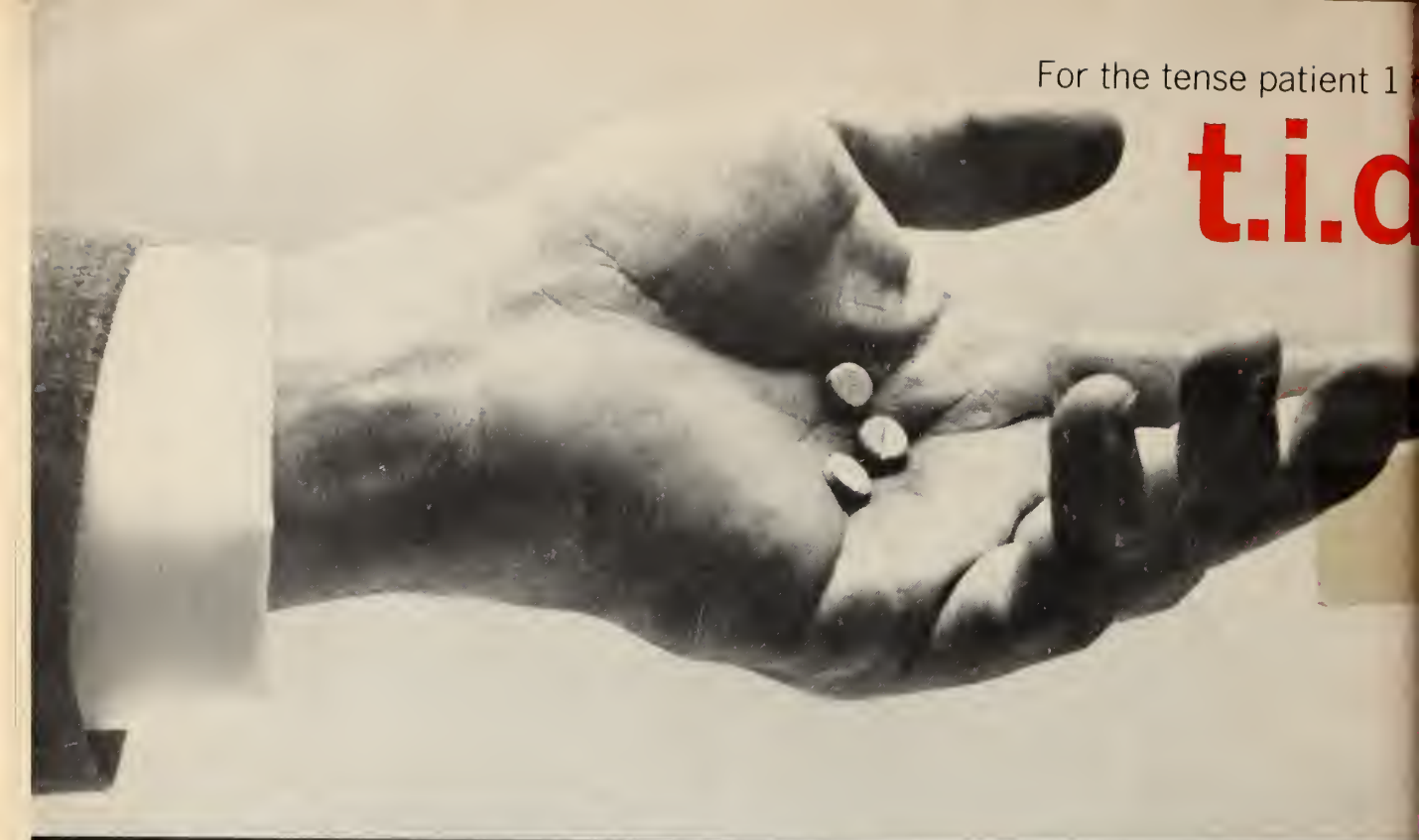
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Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, hallucinations); changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.
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(1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., *38*:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • September, 1967 • No. 3

Office of Publication

19 So. Jackson St. Montgomery, Ala. 36104

Subscription Price $5.00 Per Year

$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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President's Page



Dr. E. Bryce Robinson, Jr.

A Mixed Blessing

The announcement some time ago in the Birmingham News that the University of Alabama School of Nursing is to be moved from the Tuscaloosa campus to Birmingham in September and become a part of the growing Medical Center is of interest. Opportunity for nurses to earn baccalaureate and higher academic degrees in an environment that also offers educational programs for physicians, dentists and allied health personnel at all levels is desirable if the health team concept is to be a reality. The highly trained, even specialized, professional nurse will be the teaching nucleus for the future nursing population and in the hospital she will concern herself with procedures commensurate with the training, intelligence and responsibility expected of a person with a college degree.

This change in the School of Nursing, however, has also produced another change that only serves to aggravate an already distressing situation. The University Hospital School of Nursing Diploma Program admitted its last class in September, 1966. Two years from now this program will join the lengthening list of hospital schools of nursing that have been closed or converted into degree schools of nursing. Conservative estimates place today's needs for R. N.s at 746,000; only 621,000 are actually employed. Direct nursing care by R. N.s is still at less than 30 per cent in general hospitals and under ten per cent in mental hospitals.

With these conditions facing us today we can ill afford to close any type of program which prepares nurses! Rather, we should be aggressive in obtaining *all* types of nursing training programs: the hospital diploma schools (3 years), the community college associate degree programs (2 years), and the collegiate programs (4 years). This is exactly the position taken by the AMA at its June 1967 annual convention.

The 1967 survey of career choices of senior members of 586 Future Nurses Clubs in the U. S. indicated that of the 2,709 students interested in nursing programs 1,844 enrolled in diploma programs as compared with 683 in baccalaureate and 182 in associate degree programs. It would appear, therefore, that the diploma programs will continue to supply the great bulk of the *bedside nurses.* Bedside nurses are the great need in the country

today for the care of the hospitalized patient.

The medical profession in Alabama has a particular obligation and responsibility to provide leadership for training programs *for all types* of allied medical personnel. While the new collegiate program in nursing meets a need, it also serves to emphasize the fact that we must equally support diploma and associate degree programs if our patients are to have quality nursing care.



E. Bryce Robinson, Jr., M. D.,
President, The Medical Association of the State of Alabama

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

Calendar of Meetings

American Medical Association

1967, November 26-29, Clinical Convention, Houston, Texas

1968, June 16-20, Annual Convention, San Francisco, California

1968, December 1-4, Clinical Convention, Miami Beach, Florida

1969, July 13-17, Annual Convention, New York, New York

1969, November 30-December 3, Clinical Convention, Denver, Colorado

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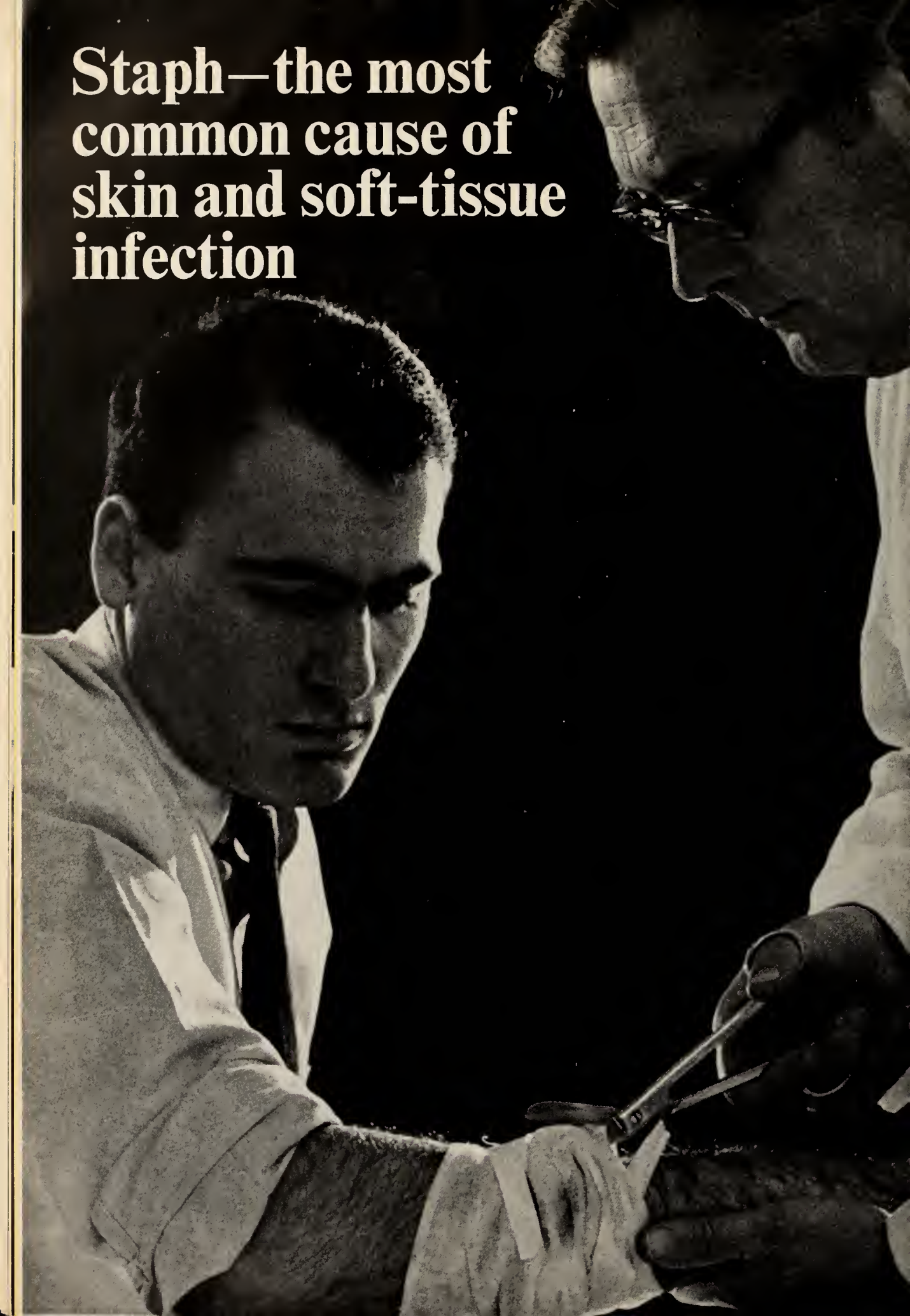
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PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY 8:12.16**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

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The Woman's Auxiliary

"By all these lovely tokens
September days are here,
With summer's best of weather
And autumn's best of cheer."

—Helen Hunt Jackson

Summer ends and autumn begins in September. The first Monday of this beautiful month has been set aside to honor working men. Daniel Webster once said "Labor is one of the greatest elements of society—the great substantial interest on which we all stand." Certainly this is true, but we must also agree with Pope Pius XI that "unless brains, capital and labor combine together for common effort, men's toil cannot produce due fruit."

This same principle may well be applied to the Medical Association and the Woman's Auxiliary. This is especially true in our efforts to support the American Medical Association Education and Research Foundation.

The money given to AMA-ERF is used to support three programs. They are:

1. An unrestricted fund for medical schools to be used to help pay faculty salaries; to buy modern laboratory equipment, library materials and building improvements; and to provide emergency funds for student needs or other necessities for the school.

2. A loan guarantee fund to provide loans for students, interns and residents at low interest rates. Every dollar contributed to this fund makes $12.50 in bank credit available to tomorrow's physician with no payment due on the principal until all training is completed.

3. To support the Institute for Biomedical Research by helping pay salaries of senior scientists, laboratory assistants and technicians; to help buy laboratory equipment and supplies; and to provide a free, unrestricted atmosphere where creative research on the nature of the cell and substance of life can flourish.

The Auxiliary realizes that we must work with the Medical Association to support this program if medical education is to remain at its present high level, and we have made this our only fund raising project.

Last year Alabama contributed $13,017 to AMA-ERF. Each of these dollars represents time and effort by the physicians' wives of Alabama to further medical education in our state and nation.

In 1966 Alabama received a National Award of Merit for the largest contribution in our membership category of states for our contribution of $11,632.57. During the past year we increased our contribution almost $1,400, however, West Virginia won the award and Alabama was second.

This year we would like very much to bring this National honor back to Alabama and we can, if you will help us. You can help by making your contribution through the Auxiliary. In this way both the Auxiliary and the Medical Association will receive credit for your contribution. All you need to do is to make your check payable to: The AMA-ERF Auxiliary Fund, earmark it for the medical college of your choice and mail it to your County Auxiliary AMA-ERF Chairman or President.

All contributions are tax deductible and your support is greatly needed.

Most sincerely,

Kay Guin

Mrs. James C. Guin, Jr.
President

To the Doctors of Alabama

Dear Doctor:

It is with great pleasure that I invite you to my home state this fall, to the AMA Clinical Convention at Houston, November 26-29.

I believe you will find the convention's program particularly interesting; it offers refreshing insights into clinical problems that you will find useful in your practice or professional duties.

This meeting is especially designed to help us keep up-to-date on latest medical developments. For the 21st consecutive year, the AMA has assembled an extensive well-rounded program outlining current knowledge.

You will be impressed, I think, by the outstanding medical teachers who have accepted the invitation of the Harris County Medical Society and the AMA Council on Scientific Assembly to participate in the scientific program. The Harris County Society has done a fine job in bringing together this program.

For you, the Clinical Convention presents opportunities for refreshing your medical knowledge, for renewing associations with fellow physicians, and for catching a breather from your busy schedule. It promises to be a stimulating four days, worthy of your time.

With my colleagues, the physicians of Texas and Harris County, I cordially invite you to Houston, a dynamic, interesting city that you and your family will enjoy.

See you at the Clinical!

Milford O. Rouse, M. D.
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Editorial COMMENT

How Healthy Are College Athletes?

Without burdening the issue, this month appears to be an appropriate time to emphasize the high school and college athletic programs of Alabama and to comment on the growing importance which illness and injuries can have on a school's program.

The Schering Corp. of Bloomfield, New Jersey, recently sponsored a symposium dealing with industrial and scholastic absenteeism. One of the speakers was William D. Paul, M. D., Professor of Physical Medicine and Rehabilitation and Medical Supervisor of Varsity Athletics, University of Iowa. Dr. Paul presented some statistics which should prove of interest to every Alabama physician who is concerned with the health and welfare of young people. Here are excerpts from his presentation:

Touch football accidents at the University of Iowa imperiled almost twice as many lives as motorcycle accidents and accounted for 75 per cent more casualties than varsity football. Automobiles were the leading cause of all accidents on campus; they resulted in 30 per cent more injuries than touch football.

Infectious mononucleosis was the leading illness among all students. Here Dr. Paul agreed with Dr. Flinn that infectious mononucleosis is a very benign, self-limiting disease. Patients with mononucleosis usually have a soft, enlarged spleen that can rupture just by rapid movement. For this reason, all running, jumping and contact sports are prohibited.

The second most common condition on campus was acute bronchitis, and the third was an acute respiratory infection such as a cold.

Besides injuries and illnesses, there were eight attempted suicides; two were successful. One was a registered student, the other a drop-out who committed suicide two weeks after he quit classes.

Serious accidents and illnesses are rare in varsity sports because the boys are physically fit, Dr. Paul declared. The boys are well supervised and carefully examined several times a year. They are immunized against hepatitis and poliomyelitis, if necessary. They all get tetanus immunizations every year. If they have been hurt, they are reexamined before they return to practice and contact sports.

Only three varsity football injuries required admission to the University health center in the 1965-66 school year, in contrast to the 40 infirmary admissions precipitated by touch football for the same period. "And these 40 represent severe injuries, from head injuries to a ruptured spleen, to a ruptured kidney, to fractures," Dr. Paul emphasized.

On the other hand, the 16,000 students were involved in 56 on-campus automobile accidents and 26 motorcycle accidents requiring treatment. The total number of students admitted was 1,204; the average length of stay was 3.2 days.

Even when compared on the basis of numbers of students participating, injuries from intramural sports account for more student health center admissions than do varsity sports.

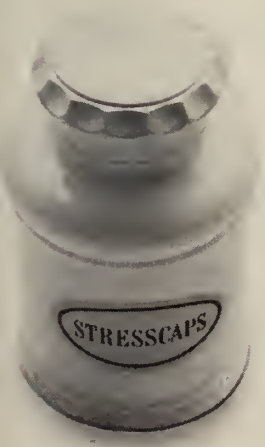
For example, rugby caused one injury

(Continued on Page 237)



in digestive disorders:

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Talwin is relatively free from adverse effects of morphine, such as constipation, urinary retention, or severe respiratory depression.

It has been used, in varying dosages, in over 12,000 patients for relief of pain of medical disorders, of active labor and postoperative pain; also for preoperative or preanesthetic medication, and as an adjunct to anesthesia.

A brochure incorporating analyzed information on Talwin is available. The completeness of the information will permit you to evaluate the role Talwin can play in your practice.

You can depend on Talwin to relieve pain:

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Talwin does not require a narcotics prescription

The World Health Organization Expert Committee on Dependence-Producing Drugs concluded that "...there was no need at this time for narcotics control of pentazocine [Talwin] internationally or nationally." (*WHO Tech. Rep. Ser.*, No. 343, 1966, p. 6.)

It is our sincere belief that the discovery of Talwin by Winthrop Laboratories will be of great value to you and your patients for whom you may have to prescribe a potent analgesic.

*Talwin should not be used for patients with increased intracranial pressure, head injury or pathologic brain conditions.

†Until sufficient experience is gained, it should not be administered to children under 12 years of age.

Talwin—brand of pentazocine (as lactate)

Contraindications: *Increased Intracranial Pressure, Head Injury, or Pathologic Brain Conditions in which clouding of sensorium is undesirable.* Talwin (brand of pentazocine) should not be administered in these eases, since drug-induced sedation, dizziness, nausea, or respiratory depression could be misleading.

Preeautions: *Pregnancy.* No teratogenic or embryotoxic effects attributable to the use of Talwin have been seen in extensive reproductive studies in animals; however, like all new drugs, Talwin should be given with caution to pregnant women. A large number of patients in labor have received the drug with no adverse reactions other than those that occur with commonly used strong analgesics. However, as with other strong analgesics, Talwin should be used with caution in women delivering premature infants.

Ambulatory Patients. Since sedation, dizziness, and occasional euphoria have been noted, ambulatory patients should be warned not to operate machinery, drive cars, or unnecessarily expose themselves to hazards.

Certain Respiratory Conditions. The possibility that Talwin (brand of pentazocine) may cause respiratory depression should be considered in treatment of patients with bronchial asthma. Talwin (brand of pentazocine) should be administered only with caution and in low dosage to patients with respiratory depression (e.g., from other medication, uremia, or severe infection), obstructive respiratory conditions, or cyanosis.

Patients Dependent on Narcotics. Because Talwin is a narcotic-antagonist, patients dependent on narcotics and receiving Talwin may occasionally experience certain withdrawal symptoms. Talwin should be given with special caution to such patients. It has been observed that some patients previously given narcotic-analgesics for one month or longer had mild withdrawal symptoms when the drug was replaced with the analgesic, Talwin. After a short period of adjustment the subjects were usually able and willing to continue taking Talwin, and relief of pain was satisfactory.

Nonaddicted Patients Receiving Narcotics. Symptoms believed to be indicative of antagonism to the opiate may be observed rarely with administration of Talwin to patients receiving opiates for a short time. Intolerance or untoward reactions are seldom observed after administration of Talwin to patients who have received single doses or who have had limited exposure to narcotics.

Impaired Renal or Hepatic Function. Although laboratory tests have not indicated that Talwin (brand of pentazocine) causes or increases renal or hepatic impairment, the drug should be administered with caution to patients with such impairment. Extensive liver disease appears to predispose to greater side effects (e.g., marked apprehension, anxiety, dizziness, sleepiness) from the usual elinical dose, and may be the result of decreased metabolism of the drug by the liver.

Myocardial Infarction. As with all drugs, Talwin (brand of pentazocine) should be used with eaution in patients with myoeardial infarction who have nausea or vomiting.

Biliary Surgery. Until further experience is gained with the effeets of Talwin on the sphincter of Oddi, the drug should be used with caution in patients about to undergo surgery of the biliary traet.

Adverse Effeets: Talwin is relatively free from the undesirable side effects associated with morphine, such as eonstipation, urinary retention, or severe respiratory depression. Furthermore, Talwin produees less nausea, vomiting, and diaphoresis than meperidine.

In over 12,000 patients who received Talwin intramuseularly, subcutaneously, or intravenously, nausea, the most frequent adverse effect, occurred in approximately 5.0 per cent. In decreasing order of occurrence were vertigo, dizziness or lightheadedness; vomiting; and euphoria. Respiratory depression was reported as an adverse reaction in 1.0 per cent.

The ineidence of each of the other adverse effeets was well below 1.0 per cent: constipation, circulatory depression, diaphoresis, urinary retention, alteration in mood (nervousness, apprehension, depression, floating feeling), hypertension, sting on injeetion, headache, dry mouth, flushed skin including plethora, altered uterine contractions during labor, dermatitis including pruritus, dreams, paresthesia, and dyspnea occurred rarely after administration of Talwin (brand of pentazocine). Furthermore, each of the following adverse reactions occurred in less than 0.1 per cent: tachycardia, visual disturbance (blurred vision, diplopia and nystagmus), hallucinations, disorientation, weakness or faintness, muscle tremor, chills, allergic reactions including edema of the face, taste alteration, insomnia, diarrhea, cramps, and miosis; laryngospasm in one patient.

Talwin has not produced severe respiratory embarrassment in adults (never apnea), even with large amounts. A small number of newborn infants whose mothers received Talwin during labor had transient apnea. The incidence of temporary diminution in the rate or strength of uterine contractions is low after administration of Talwin, similar to that following meperidine hydrochloride. (In reporting no interference with normal labor in patients receiving Talwin, one investigator further stated that the drug may increase uterine activity.) Generally, no significant fetal heart rate change occurs.

Laboratory tests of blood and of liver and kidney functions have revealed no significant abnormalities. A minimum and probably insignificant increase in the per cent of eosinophils in peripheral blood counts and bone marrow occurred occasionally.

Talwin is well tolerated by patients with diabetes mellitus, and no changes in insulin requirements have been observed.

Dosage and Administration: *Adults, Excluding Patients in Labor.* Average recommended single parenteral dose is 30 mg., by intramuscular, subcutaneous, or intravenous route; may be repeated every three to four hours. Pain has been relieved in most patients with not more than three doses daily. Infrequently, selected patients have received single doses as high as 60 mg. *Patients in Labor.* A single, intramuscular 30 mg. dose has been most commonly administered. An intravenous 20 mg. dose has given adequate pain relief to some patients in labor when contractions become regular, and this dose may be given two or three times at two- to three-hour intervals, as needed.

Children Under 12 Years of Age. Since clinical experience in children under twelve years of age is limited, the use of Talwin (brand of pentazocine) in this age group is not recommended.

Duration of Therapy. Patients with chronic pain who received Talwin for prolonged periods (e.g., over 300 days) experienced no withdrawal symptoms even when administration was stopped abruptly; furthermore, there was no tolerance to the analgesie effect.

CAUTION. Talwin should not be mixed in the same syringe with soluble barbiturates beeause precipitation will oecur.

Treatment of Overdosage or Respiratory Depression. Talwin has not produced apnea or severe respiratory embarrassment in adults, even in large doses. Occasionally, however, moderate respiratory depression may oeeur. Means of maintaining proper oxygenation should be available in case of overdosage or respiratory depression, and methylphenidate (Ritalin®) should be administered parenterally. The usual nareotic-antagonists, sueh as nalorphine, are not effeetive respiratory stimulants for depression due to Talwin.

How Supplied: *Ampuls of 1 ml.*, eontaining Talwin® (pentazoeine) as laetate equivalent to 30 mg. base and 2.8 mg. sodium ehloride, in Water for Injeetion. Boxes of 10, 25, and 100.

Multiple dose vials of 10 ml., eaeh 1 ml. eontaining Talwin (pentazoeine) as laetate equivalent to 30 mg. base, 2 mg. aeetone sodium bisulfite, 1.5 mg. sodium ehloride, and 1 mg. methylparaben as preservative, in Water for Injection. Boxes of 1.

The pH of Talwin solutions is adjusted between 4 and 5 with lactic acid and sodium hydroxide.

Winthrop

Winthrop Laboratories, New York, N.Y. 10016

(1150M)

When moderate to severe anxiety strikes home...

(the agitated geriatric)

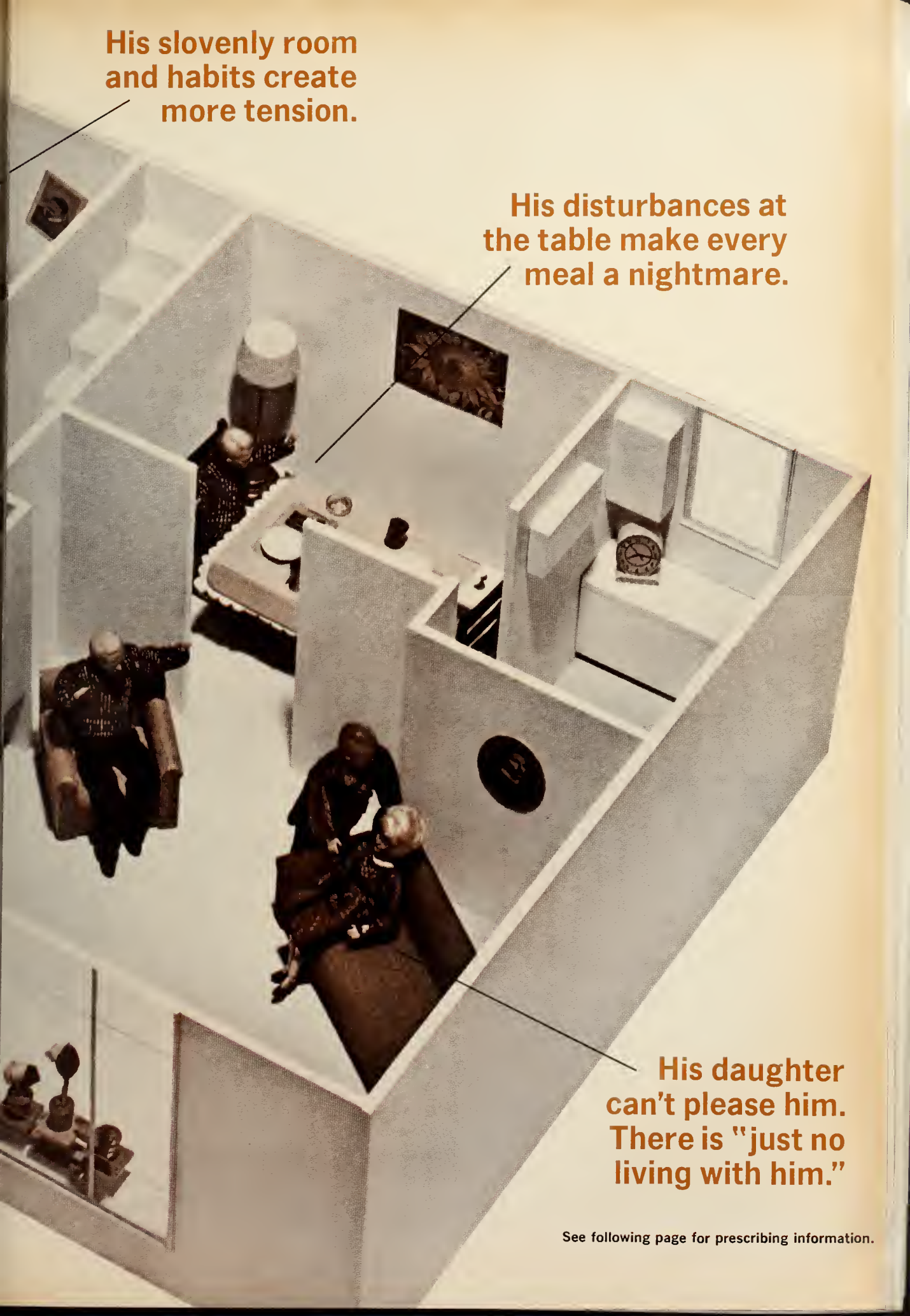
His teen-age granddaughter won't invite friends home because of his outbursts.



for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ



See following page for prescribing information.

When moderate to severe anxiety strikes home...

Anxiety that seriously interferes with the individual's performance at work, at home, or in the community may be regarded as moderate to severe in degree.

Mellaril often recommends itself to the treatment of moderate to severe anxiety because it

- helps control the most frequent symptoms: marked tension, agitation, apprehension, restlessness, hypermotility
- often alleviates anxiety-induced somatic complaints
- frequently helps strengthen emotional resources
- helps the patient maintain realistic contact with environment, closer harmony with family

Thus, when you consider the anxiety moderate to severe... consider Mellaril.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming...	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

HOW HEALTHY ARE COLLEGE ATHLETES?

(Continued from Page 230)

during the 1964-65 year—the first year it was played—and has been the cause of five major accidents, most of them fractures, since school opened in the fall of 1966. Basketball was responsible for one accident; skiing accounted for seven. Three injuries occurred in physical education classes due to tumbling and trampoline.

Accidents and injuries occurred, Dr. Paul said, because the players lack supervision and equipment, are not physically qualified for the sport and have neither the time nor the motivation to play a really good game.

Yet, in a varsity squad of 91 football players where there were 135 injuries, 95 per cent were nothing more than bruises; there were only three fractures. A boy who injured his ankle lost only 48 hours from classes; another fractured a finger but didn't lose time from either practice or classes.

Team members had 32 cases of upper respiratory infections, but all continued to play, primarily because of the motivation and because "they are on a scholarship and have to be there," Dr. Paul explained.

"In baseball there were 70 participants, and only nine injuries reported, mostly due to sliding and cuts from cleats. In 54 boys out for track, there were 41 injuries, principally shin splints. The number and severity "vary with whether the boys are doing well or are going to be cut off the squad," the physician noted.

Basketball accounted for 54 injuries, mostly blisters; in swimming, there were three. Gymnastics and the trampoline accounted for a few, as well. Wrestling was responsible for dislocated elbows and shoulders. Minor injuries were reported in fencing, tennis and golf.

On the basis of what Dr. Paul had observed in his 30 years at Iowa, athletes with good attendance records for practice and classes tended to score better than average in their subsequent careers.



Two Committees to Blaze New Trails

Two additions to the organizational structure of the Association are standing committees, one to deal with the Medical Aspects of Traffic Safety, and the other to deal with the Medical Aspects of Sports. Members of these committees have been carefully selected on the basis of their interest in and knowledge of the subjects with which they will be concerned.

The chairmen of these two committees: Dr. Ellis F. Porch of Arab, for the Medical Aspects of Sports Committee, and Dr. James C. Upchurch of Fairfield, for the Medical Aspects of Traffic Safety, already have organized their groups and have embarked upon far-ranging programs which inevitably must reflect advantageously upon this Association and its entire membership.

Every person who ventures upon the highways of Alabama should be deeply concerned with the dangers which exist thereon. Any results obtained from a program to make our streets and highways safer are eagerly desired.

Every parent of a boy or girl who engages in athletic activities should follow with keen interest the progress of the committee on the Medical Aspects of Sports, which contemplates carrying its efforts directly into the high school and junior high school areas through regional consultations with coaches, school officials, parents, and the young athletes themselves.

Physicians in other states, similarly engaged, have proven that a sensational reduction in injuries can be accomplished when they focus their attention upon sporting activities during those early years in a boy's career before his bone structures are fully developed.

This Journal holds much hope that these committees, composed of truly qualified physicians, will make their presence known and appreciated, not only to the Medical Association of The State of Alabama, but to all citizens of this commonwealth.

All Quiet on Spinal Front

For the first time in a number of years an Alabama legislative session has come and gone without any attempt by the chiropractors to enact legislation which would give them broader license to practice their quackery in this state.

In fact the only chiropractic legislation introduced resulted from an intramural scrap between the Alabama Chiropractic Association and the Alabama Chiropractic Federation. The Association sought a change in the law to give it stronger power to crack down on the few members of the Federation.

There was a threat that a bill would be introduced to permit chiropractors who had passed their national board examination to practice in Alabama without taking the basic science examination. A similar bill was badly beaten a year ago; no such bill was even offered during the regular session this year.

This inactivity on the part of the chiropractors should not cause members of the medical profession to be lulled into complacency. This fight is far from over. In fact, some chiropractors are already looking for ways and means to be included in the implementation of the Title XIX program in Alabama. And like the optometrists, the chiropractors also want to be included in all federal medical programs.

Chiropractors have come a long way since that day about 75 years ago when a grocer claimed that he had cured a man of deafness by giving him a spinal adjustment. Unfortunately, there are still a lot of people who believe this nonsense. Our view is best expressed in that old but most apt quote: "The human spine serves three purposes—it supports the head, the rib cage and the chiropractor—all of them quite adequately."



New view of an oral contraceptive at work

Although suppression of ovulation remains the primary mode of action of oral contraceptives, newer knowledge indicates that products like Norinyl-1— a combination of both low-dosage progestogen and estrogen for the full treatment cycle—may provide multiple action that helps explain their unexcelled record of contraceptive effectiveness. This report explores the possible secondary protective mechanisms offered by combined hormonal administration.

Accumulating evidence has indicated that sparse, highly viscous cervical mucus has a possible adverse effect on the motility and survival of spermatozoa.

The estrogen-opposing progestational ingredient of Norinyl-1 (norethindrone 1 mg. with mestranol 0.05 mg.) changes the usual mid-cycle picture of a thin, watery cervical mucus. The result—a built-in barrier that appears to inhibit sperm from reaching the ovum should one be released. The inset in the adjoining photograph shows immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

See last page for contraindications, precautions, side effects and dosage.

How the estrogen-opposing action of Norinyl-1 creates cervical mucus that may be hostile to sperm penetration

Normally, estrogen activity during the fertile midcycle stimulates the production of a profuse and watery cervical mucus that permits maximum sperm motility and promotes penetration.

But what happens when Norinyl-1 is administered? Its potent progestogen, norethindrone, opposes estrogen stimulation of cervical mucus. Consequently, the amount of mucus decreases and its viscosity increases. This results in a sparse but thick mucus barrier that appears to diminish the vitality of the sperm and to impair its powers of penetration.

The role of viscous cervical mucus as a secondary action of Norinyl-1

In a report on 89 patients taking this medication,* cervical mucus obtained from cycle day 5 to cycle day 29 appeared scant and thick and exhibited little or no Spinnbarkeit.

In the opinion of this investigator, the effect on cervical mucus may be sufficient to prevent conception.

*Cohen, M. R.: Symposium: Mechanisms of Action of Low Dosage Oral Contraceptive, Yale University Medical Center, New Haven, Conn., April 6, 1967.

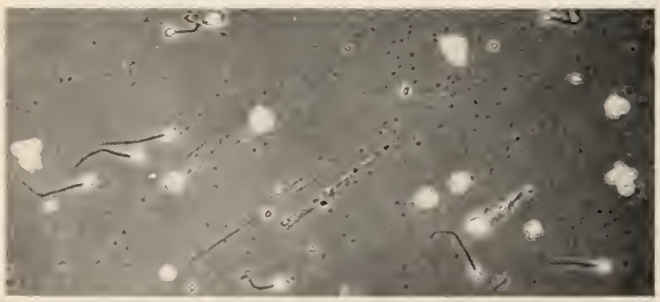
Normal cervical mucus at midcycle in untreated patient is known to permit sperm motility... promote sperm penetration.



Cervical mucus is thin and watery with a stretchability (Spinnbarkeit) of 15 to 20 cm.



Thin, watery mucus crystallizes into this well-defined, fernlike pattern within a minute.

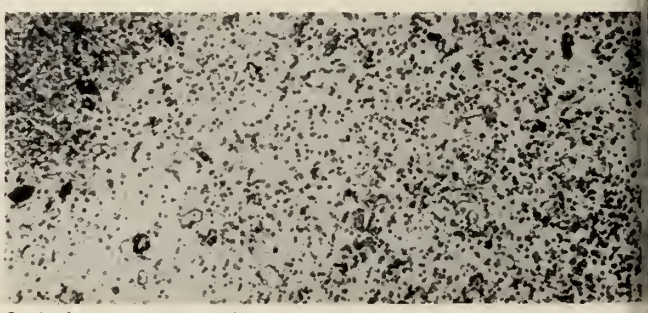


Spermatozoa appear healthy, are active and freemoving.

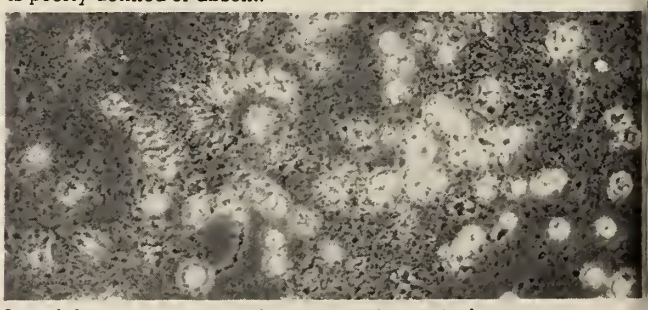
Viscous cervical mucus at midcycle produced by Norinyl-1 appears to impair sperm vitality... inhibit penetration.



Cervical mucus is scanty, thick and viscous. Spinnbarkeit is 1 cm. or less.



In thick, viscous cervical mucus the fern pattern is poorly defined or absent.



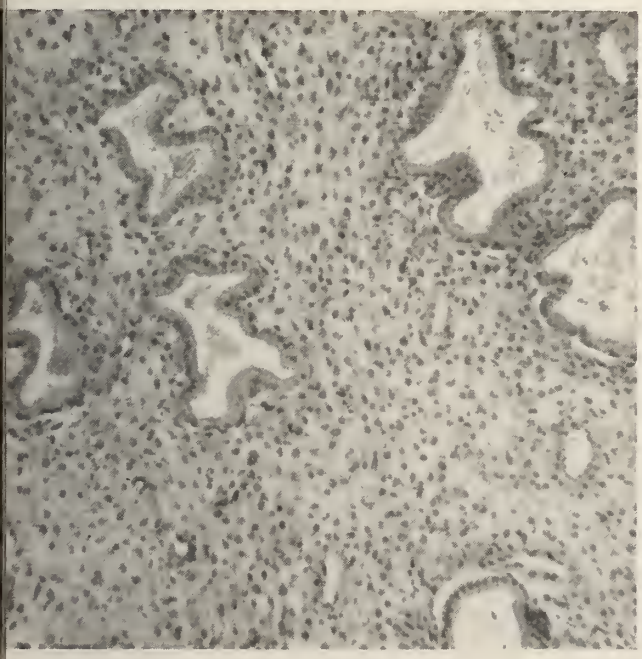
Immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

How Norinyl-1 alters normal endometrial responses—another possible protective mechanism

Let us suppose that an ovum is released—as occurs in an occasional, rare case—and somehow a sperm succeeds in penetrating the cervical mucus barrier. Should this come about, the additional action of Norinyl-1 may protect the patient from unwanted pregnancy. The theory is that progestogen intake makes endometrial tissue unreceptive to implantation.

Endometrium of untreated patient

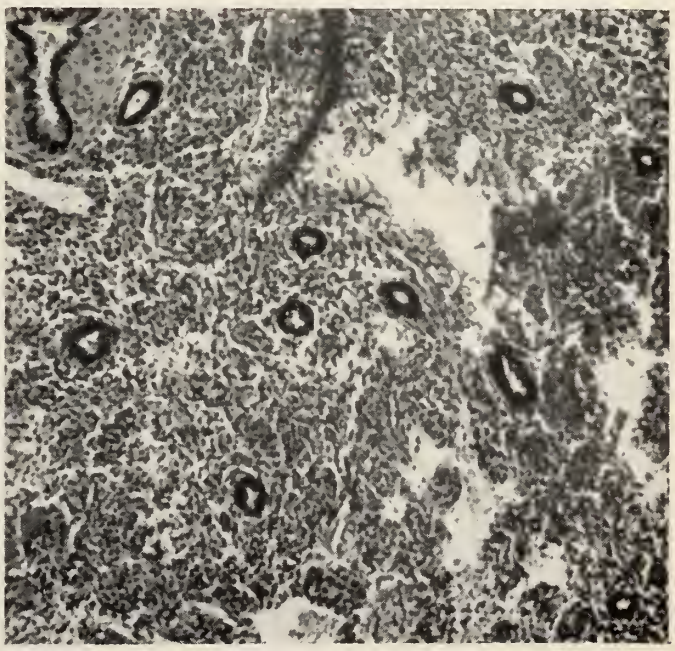




Normally, the endometrium progresses through proliferative phase stimulated by estrogen and a secretory phase stimulated by progesterone. During the secretory phase the endometrium is receptive to the fertilized ovum.

Endometrium produced by Norinyl-1





When Norinyl-1 is administered its progestogen component—norethindrone—accelerates the secretory phase and suppresses glandular and vascular development.

See last page for contraindications, precautions, side effects and dosage.

new Norinyl-1® tablets

(norethindrone 1mg. & mestranol 0.05mg.)

effective fertility control
on half the previous dosage

maintains ratio
of the established
norethindrone/mestranol
combination

lower cost

new Norinyl-1®

(norethindrone 1mg. c̄ mestranol 0.05mg.) **tablets**

Reduction of oral contraceptive dosage to lowest effective levels has become a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now available in a new strength in which *both* norethindrone and mestranol are reduced 50 percent. Studies show that Norinyl-1 achieves fertility control with only 1.05 mg. of combined progestogen and estrogen per tablet.

Norethindrone was first reported for use as a progestational agent in human beings in 1955. Norethindrone 2 mg. with mestranol 0.1 mg., as an oral contraceptive, is currently in use by over 2,000,000 women. Clinical experience now establishes that Norinyl-1 also amply meets the criteria of reliability and safety.*

*Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965.

PRESCRIBING INFORMATION

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of Norinyl-1 in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with Norinyl-1. Therefore, if such tests are abnormal in a patient taking Norinyl-1, it is recommended that they be repeated after the drug has been withdrawn for 2 months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibroids may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac, or renal dysfunction, require careful observation. 5. Although a cause and effect relationship has not been established, Norinyl-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged Norinyl-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Norinyl-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. A cause and effect relationship has not been demonstrated. 11. Because of the effects of estrogens on epiphyseal closure, Norinyl-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask the onset of the climacteric. 13. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma, breast changes (tenderness, enlargement and secretion), loss of scalp hair, change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, erythema multiforme, erythema nodosum, hemorrhagic eruption, migraine, rash (allergic), itching, rise in blood pressure in susceptible individuals, mental depression.

The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has not been established: thrombophlebitis, pulmonary embolism, neurooocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: increased bromsulphalein retention and other hepatic function tests, coagulation tests (increase in prothrombin, factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metapyrone test, pregnanediol determination.

Other side effects reported to have occurred in association with use of this drug are dizziness, hirsutism, pains in legs, back, chest and abdomen, dysuria, drowsiness, vaginal discharge, libido increased and decreased, eruptions, hypermenorrhea, hypomenorrhea, increased appetite, G.U. infections, varicose veins, abdominal fullness, acne, headache, nervousness, allergies, blurred vision, pain in eyes, and itching in eyes. *For complete clinical data, see package insert.*

Dosage and Administration: 1. One tablet of Norinyl-1 is administered orally for 20 days beginning on day 5 of the menstrual cycle. (Count day 1 of the cycle as the first day of menstrual bleeding.) Repeat this dosage schedule for each cycle. 2. If no menstrual period occurs after a cycle of treatment (20 tablets) in which patient adhered to the schedule, the patient must be instructed to resume taking the Norinyl-1 tablets 7 days after the previous 20-day course was completed. For example, if the last pill of a previous cycle had been taken on a Sunday, then a new cycle of treatment should begin on the following Sunday. 3. In the postpartum woman, it is recommended that the first cycle of treatment should begin on day 5 of the first menstrual cycle. However, Norinyl-1 should not be administered during lactation.

Availability: Norinyl-1 (norethindrone 1 mg. with mestranol 0.05 mg.)—Dispensers of 20 and 60 and bottles of 250 tablets.

norethindrone — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

Guest Editorial....

Consent for What?

Frank Cole, M. D.

Editor, the Nebraska State Medical Journal

Consent for surgical procedures is not always as simple as it sounds. Why consent forms at all? The thought that the surgeon is operating on you by force is patently absurd. The suggestion that you have been brought to the hospital against your will, and have been taken to surgery unwillingly and without your awareness is nothing if not ridiculous. The druggist does not need your consent when he hands you a packet of aspirin, nor does the dentist when he fills a tooth; is he not *operating?* And the internist goes through life ordering things for and doing things *to* people without requiring them to sign consent forms. It is a strange device, it seems often needless, and it occasionally proves troublesome. The child who requires surgery while the parents are away presents a rare problem, but one that is fairly solved, and one that cannot be the excuse for hundreds of thousands of other cases; in any event, the child with vacationing father and mother cannot sign consent. Consent forms may be a nuisance, and were probably once the invention of an overly zealous bureaucrat or an overworrisome official. *But they are here.* Meanwhile, we have been able to come up with variations that, important or not, may give us pause.

The usual consent.

Informed consent. This is quite different. The patient may say that he did consent to the operation, but that he was not told of possible complications.

Second operation. When a patient requires reoperating during the same hospital stay, the question may be raised: is the original consent adequate for the second procedure?

Emergency: is consent necessary? The surgeon's definition of emergency may not be shared by others. When a patient is bleeding badly, however, there may not be time to go through the consent signing ritual.

Consent given by someone else. We once had a consent form signed by a *friend;* the patient was adult, conscious, and rational.

Consent given *to* someone else. The question has been asked: is consent given to the referring physician, and to the surgeon, valid?

Invasion of right of privacy; consent given by minor; consent for photographs; consent to publish a case report.

With anesthesia, if necessary; what kind of anesthesia?

No blood to be given.

Consent for *any* procedure? Additional procedure, as cholecystectomy during abdominal hysterectomy.

Implied consent. We sometimes hear that the patient came to the hospital to have the operation, and no more is needed. Oral, telephone, letter, and telegram consents.

Forced consents, by courts.

Consent where the patient feels that success is thereby guaranteed.

Consent for sterilizing procedures.

For transfusion only; this has been suggested. For special nonsurgical procedures, as myelography. Negative consent, as in *not* performing appendectomy during hysterectomy.

Consent given by confused patient. Parents not present.

The patient who can't write. He can still give or refuse to give consent. Consent for

Reprinted from the *Nebraska State Medical Journal.*

a specified procedure. Consent given after preanesthetic medication.

And there is, as Shaw used to say, the doctor's dilemma, the already hospitalized patient who will not consent to urgently needed surgery for bowel obstruction, or to transfusion for hemorrhage: must the physician continue to treat him according to the patient's directions, and in a manner of which the doctor does not approve?

No consent; apparently none is required for at least most medical treatment.

Who is responsible? We have heard that a 20 year old married man's consent must or may be signed by his wife, who may sometimes be younger than he. On one occasion, a mother signed consent for her 20 year old daughter, but the daughter turned 21 on the day of surgery. It is important to know on occasion if a guardian has authority or if the natural parents do. And there is always the possibility that a father may want his child to have surgery, while the mother may not.

So many questions are raised. Should the patient know exactly which operation will be done, or shall the form read "any procedure?" What of the patient who consents, and who decides otherwise in the operating room? What ought the surgeon to do if he finds more pathology at the operating table? Is the consent form to be the surgeon's or the hospital's? How valid are oral consents? Is the patient under the influence of his physician when he gives consent? If the patient is not curious and agrees to anything, should the surgeon still explain more than the patient seems to want to know? What about experimental drugs? What of language barriers, and the hard of hearing? Does a preoperative "hypo" invalidate consent? Does a local anesthetic?

Must our nonsurgical colleagues explain all side-effects before prescribing? If we

(Continued on Page 249)



for psychiatric treatment

Peachtree Hospital, located in Atlanta, Georgia, is a complete psychiatric, alcoholic and drug addiction treatment facility accredited by the Joint Commission on Accreditation of Hospitals ☐ The hospital has 65 beds, 47 of which are devoted to the care of psychiatric patients and 18 of which, in a separate area, are for patients with acute cases of chronic alcoholism or drug addiction ☐ Treatment procedures include psychotherapy, electroconvulsive shock therapy, subinsulin coma and chemotherapy ☐ *We will be pleased to provide further information upon request.*

ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS

peachtree hospital

41 PEACHTREE PLACE, N. E. / TELEPHONE 873-5681 / ATLANTA 9, GEORGIA

The AMBAR SCRAPBOOK of Obesity Oddities
FACT & LEGEND



GALLSTONES HAVE BEEN FOUND IN 60% OF PATIENTS WHO WEIGH MORE THAN 300 POUNDS, 45% HAVE DIABETES, AND 15-TO-20% HAVE HIGH BLOOD PRESSURE.

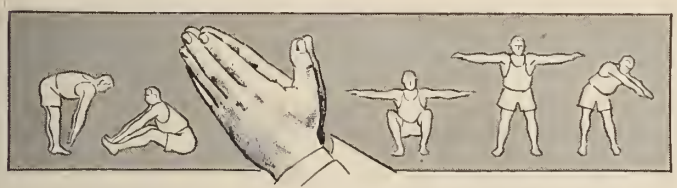
SOURCE: DUNCAN, G.G.: SCIENCE NEWS LETTER, 83:403 (JUNE 29) 1963.

NAPOLÉON BONAPARTE

LOST THE BATTLE OF WATERLOO BECAUSE HE WAS TOO FAT!

ACCORDING TO THE NEW YORK TIMES OF APRIL 13, 1890, THE DEFEAT OCCURRED BECAUSE HE FAILED TO CHECK HIS INTELLIGENCE INFORMATION. "IT WAS A MATTER OF MERE INDOLENCE AND THIS INDOLENCE WAS CAUSED BY FAT."

SOURCE: JAMA 186:65 (OCT. 5) 1963.



THE BOOK ***"PRAY YOUR WEIGHT AWAY"*** URGES READERS TO "ASK GOD TO HELP YOU LIKE EXERCISE" FOR 15 MINUTES A DAY.

SOURCE: REV. C.W. SHEDD: NEW YORK, LIPPINCOTT, 1958.



DIET DROPOUTS

ACCORDING TO DRS. SHIPMAN AND PLESSET "APPARENTLY NO DIETER SUCCEEDS WHO IS VERY ANXIOUS OR DEPRESSED."* THE AMBAR FORMULA PROVIDES **METHAMPHETAMINE** TO HELP **ELEVATE** THE **MOOD** AND **PHENOBARBITAL** TO HELP REDUCE **ANXIETY.**

*SOURCE: ARCHIVES OF GENERAL PSYCHIATRY 8:26 (JUNE 1963).

CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

A. H. ROBINS COMPANY, RICHMOND, VA. 23220 A·H·ROBINS

Against these three major pathogens...



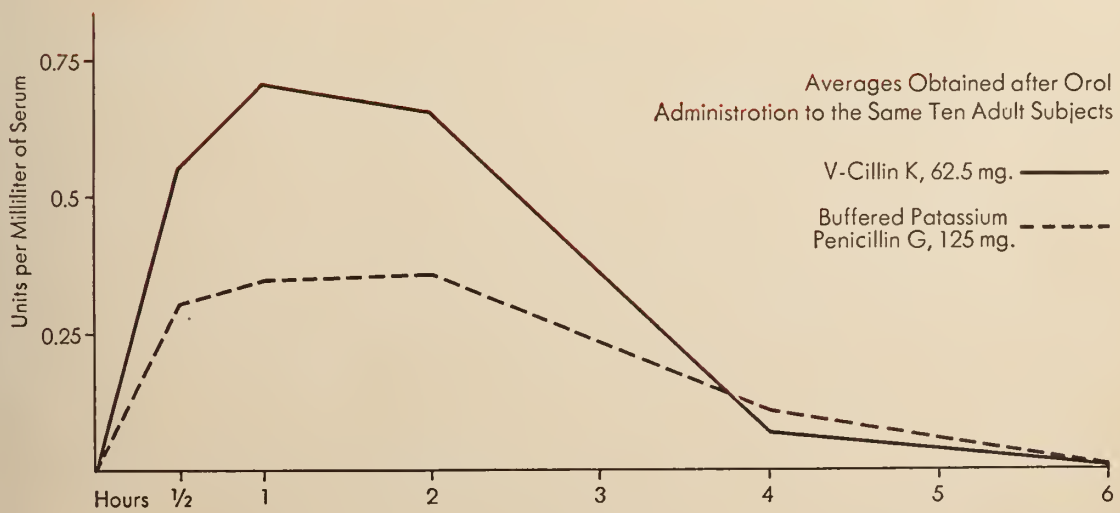
V-Cillin K® provides dependable oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Stoph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptacaccus, Group A MIC (mcg./ml.) Median	Range	Diplocaccus Pneumoniae MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adopted from Klein, J. O., and Finland, M.: New England J. Med.,269:1019, 1963.

with high blood levels, even in the presence of food



Adopted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K® Lilly 700867

Potassium Phenoxymethyl Penicillin

(See next page for prescribing information)

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin and in those with bronchial asthma or other allergies. Resuscitative drugs should be readily available for emergency administration. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for relief of immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with hig parenteral dosage schedules, frequent evaluation of the renal a hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studi (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth pencillin-insensitive organisms. In such cases, its administration shou be discontinued, and appropriate measures should be taken.

Adverse Reactions: Although serious allergic reactions are much le common with administration of oral penicillin than with intramuscul forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a sign cant index of sensitization. The following hypersensitivity reactio associated with the use of penicillin have been reported: skin rash ranging from maculopapular eruptions to exfoliative dermatitis; u caria; and reactions resembling serum sickness, including chills, fev edema, arthralgia, and prostration. Severe and often fatal anaphyla has occurred (see Warnings). Hemolytic anemia, leukopenia, thro bocytopenia, and nephropathy are rarely observed side-effects a are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin Pediatric, the usual dosage ranges from 125 mg. (200,000 units) th times a day to 500 mg. (800,000 units) every four hours. For infan the daily dosage may be 50 mg. per Kg. of body weight divided i three doses.

Beta-hemolytic streptococcus infections without associated ba teremia may be treated with 200,000 to 400,0000 units three times day. Therapy should be continued for a minimum of ten days to preve development of rheumatic fever and/or other serious complicatio Dosage for routine streptococcus prophylaxis in patients with a histo of rheumatic fever or congenital heart disease may be 200,000 un once or twice daily. When such patients undergo tonsillectomy, too extraction, or other minor surgery, the prophylactic dose should 500,000 units every six hours given two days prior to surgery and two days postoperatively. If oral medication is not feasible on the d of surgery, parenteral therapy should be considered. Mild to mod ately severe pneumococcus pneumonia has been treated effectiv with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be giv every six to eight hours in conjunction with indicated surgical proc dures.

For gonorrhea in males, 500 mg. (800,000 units) every four hours three doses may be employed; in females, 500 mg. every four ho for six doses are recommended. Refractory infections generally respo to a second treatment three to four days following completion of t first. Treatment of gonorrhea with severe complications should individualized, with prolonged and intensive treatment. Patients with suspected lesion of syphilis should have a dark-field examination b fore receiving penicillin and monthly serologic tests for a minimum three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), bottles of 50 and 100; and 250 mg. (400,0000 units) and 500 m (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) p 5 cc. of solution, in 40, 80, and 150-cc.-size packages. [0320

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

700

GUEST EDITORIAL

(Continued from Page 244)

read to the patient every word on the package literature, then he has in effect become his own doctor, for he will decide his own therapy. But it is part of a physician's burden to evaluate risks, and to shield his patient from needless fears.

"The patient came here to have the operation, didn't he?" may seem sensible to some, but not to the lawyer and not to the litigation-minded dissatisfied patient. The day when the famous English surgeon chased his I've-changed-my-mind patient down the hall, knowing what was best for him, caught him in a closet, and flung him on the operating table, is long gone.

We mean only to show that the picture is not perfectly clear; we do not, of course, suggest that we need dozens of consent forms. But silence does *not* give consent. Consents are required, and penalties are severe.



The doctor who stitched up my head coaches Little League!

Reprinted from the **JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION.**

Hill Crest
HOSPITAL
(Formerly Hill Crest Sanitarium)

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialties.



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James A. Becton, M.D., F.A.P.A.

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James K. Ward, M.D., F.A.P.A.
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HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . .
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ALABAMA HOSPITAL ASSOCIATION . . .
BIRMINGHAM REGIONAL HOSPITAL COUNCIL.

HILL CREST IS FULLY ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS.

Hill Crest
HOSPITAL
BIRMINGHAM, ALABAMA

The Birds and the Bees Come Out in the Open

This nation has come a long way in a short time in its attitude toward the subject of sex. Some of today's movies, TV shows and even TV commercials would have had the guys elbowing each other knowingly at a stag party only a few years ago.

We will leave it to others to debate whether this sex revolution is good or bad. But this point we do make. There has been one benefit from this change of public attitude toward sex.

Not too many years ago, 15 at the most, any suggestion that school age children be exposed to courses in sex education was sufficient cause for a riot at a PTA meeting. At that time the big question among educators was: "Shall we teach sex education?" That question is seldom asked any more. Instead the question is "How shall we teach sex education?"

Sex education (or if you prefer, Family Life Education), is now a standard course in many schools throughout the nation. In some instances the instruction begins as low as the fifth grade level.

Strong support for this type of program has long been provided by the AMA's Department of Health Education. It has noted a rapid increase in interest in this subject in the past two years. It cites three basic reasons for this upsurge—people are finding sex easier to talk about; concern over the increasing number of out-of-wedlock pregnancies; and finally, alarm at the sharp climb in venereal disease among teenagers.

Whatever the reason, it is good that more and more school children today are receiving their first instructions about sex from competent adults rather than learning about the birds and bees in whispered conversations with their contemporaries out behind the barn.

VALIUM®
(diazepam)Roche®

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Infants, patients with history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage—*Adults:* Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. *Geriatric patients:* 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See Precautions)

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 and 500.

ROCHE

Roche Laboratories
Division of
Hoffmann-La Roche Inc.
Nutley, N.J. 07110



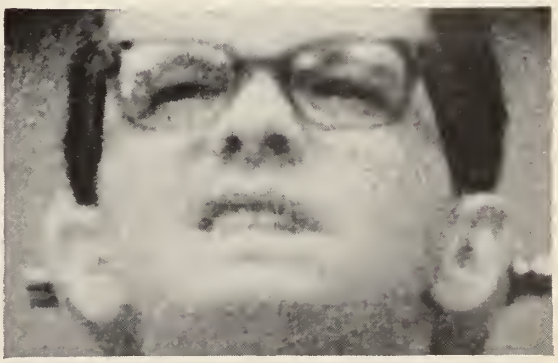
IMPORTANT NEW INSIGHTS INTO HUMAN RESPONSE TO EMOTIONAL STRESS:

New confirmation of the effectiveness of Valium® (diazepam)

Ask your Roche representative to arrange a presentation of this important and fascinating research into certain somatic responses to emotional stress . . . quantitative, objective measurement with double-blind controls.

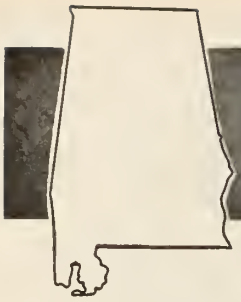
Please see opposite page for important prescribing information.











around the state

Dr. Wells Appointed Director of Alabama Regional Medical Program

Dr. Benjamin B. Wells has formerly begun tenure as Director of the Alabama Regional Medical Program. Dr. Wells' appointment to the position of Assistant to the Vice President for Regional Medical Programs was announced by the Medical Center of the University of Alabama in June, and he was introduced to Alabama physicians and allied health personnel at the first statewide Regional Medical Program meeting held in Birmingham in July.

At that time, Dr. Wells commented on his new assignment as being, ". . . very clearly to assist you and to support you in your efforts to implement a number of health related programs that are encompassed in the general concept of the Regional Medical Program." "I have," he said, "no intentions that can be separated from your wishes and your intentions. Our actions must be geared to the local needs, to the local resources and perhaps more than anything to the local acceptance of possible solutions. . . . The success of this program will depend almost exclusively on the willingness, the understanding of the Medical practitioners, and their cooperation in the objectives of this program."



Dr. Wells

A native of Texas, Dr. Wells received his B. S. and M. D. degrees from Baylor University and Baylor College of Medicine, and was awarded the Ph. D. in biochemistry from the University of Minnesota in 1941. He served a fellowship at the Mayo Clinic in Rochester, Minnesota. He has held teaching appointments at Baylor College of Medicine; the University of Arkansas School of Medicine, where he was professor and chairman of Medicine; the University of Texas Postgraduate Medical School; Creighton University School of Medicine, Omaha; and the Tulane University School of Medicine, New Orleans.

Dr. Wells has been dean of the University of Arkansas School of Medicine (1947-48); director of research of the M. D. Anderson Hospital for Cancer Research in Houston (1948-49); and dean of the California College of Medicine, University of California College of Medicine, University of California, Los Angeles (1962-63). He has served the Veterans Administration in various capacities, among them, Area Consultant in Pathology, St. Louis Area Office; Chief of Staff, Vet-

erans Administration Hospital, New Orleans; Director of Education Service, Veterans Administration Central Office; and from 1959 to the present, Assistant Chief Medical Director for Research and Education. Dr. Wells is an ex-officio member of the National Advisory Council on Arthritis and Metabolic Diseases; National Advisory Council on Allergy and Infectious Diseases; and the National Advisory Council on Regional Medical Programs, all of the National Institutes of Health.

His academic honors include membership in Beta Beta Beta (international honorary biological fraternity); Alpha Omega Alpha (honorary medical fraternity); and Sigma Xi (honorary graduate science fraternity). Dr. Wells received the Brower Traveling Scholarship, the first award by the American College of Physicians for study of teaching methods in the United States, in 1951. He is a diplomate of the American Board of Internal Medicine and the American Board of Pathology. He is a member of many distinguished scientific and professional societies, and has authored several books and sections of books, as well as numerous articles in scientific publications.

Vital Statistics

New Members

Lamar County

Davis, Robert William, Vernon Medical Clinic, P. O. Box 398, Vernon, Ala., 35592.

Lee County

May, J. T., Lee County Mental Health Center, Opelika, Ala.

Death

Jefferson County

Sellers, Henry G., 1221 Tuscaloosa Avenue S. W., Birmingham, Ala., 35211, deceased.

Remove Member

Lamar County

Davis, William Evans, 1537 Valley View Dr., Birmingham, Ala., 35209.

Change of Address

Clay County

Cook, Ottis D., present Lineville, Ala., 36266, to 1704 Hillwood Dr., Montgomery. Ala., 36106.

Escambia County

Calhoun, Wallace E., Jr., present Atmore, Ala., 36502, to P. O. Box 488, Moss Point, Miss., 39563.

Etowah County

Finney, James O., present Gadsden, Ala., to 1919-7th Ave. South, Birmingham, Ala., 35233.

Houston County

Johnson, Leslie M., present Dothan, Ala., to 403 Rosemont Dr., Dothan, Ala., 36301.

Simpson, Sam T., present Dothan, Ala., 36302, to 1744 Cedar St., Rockledge, Fla., 32955.

Jackson County

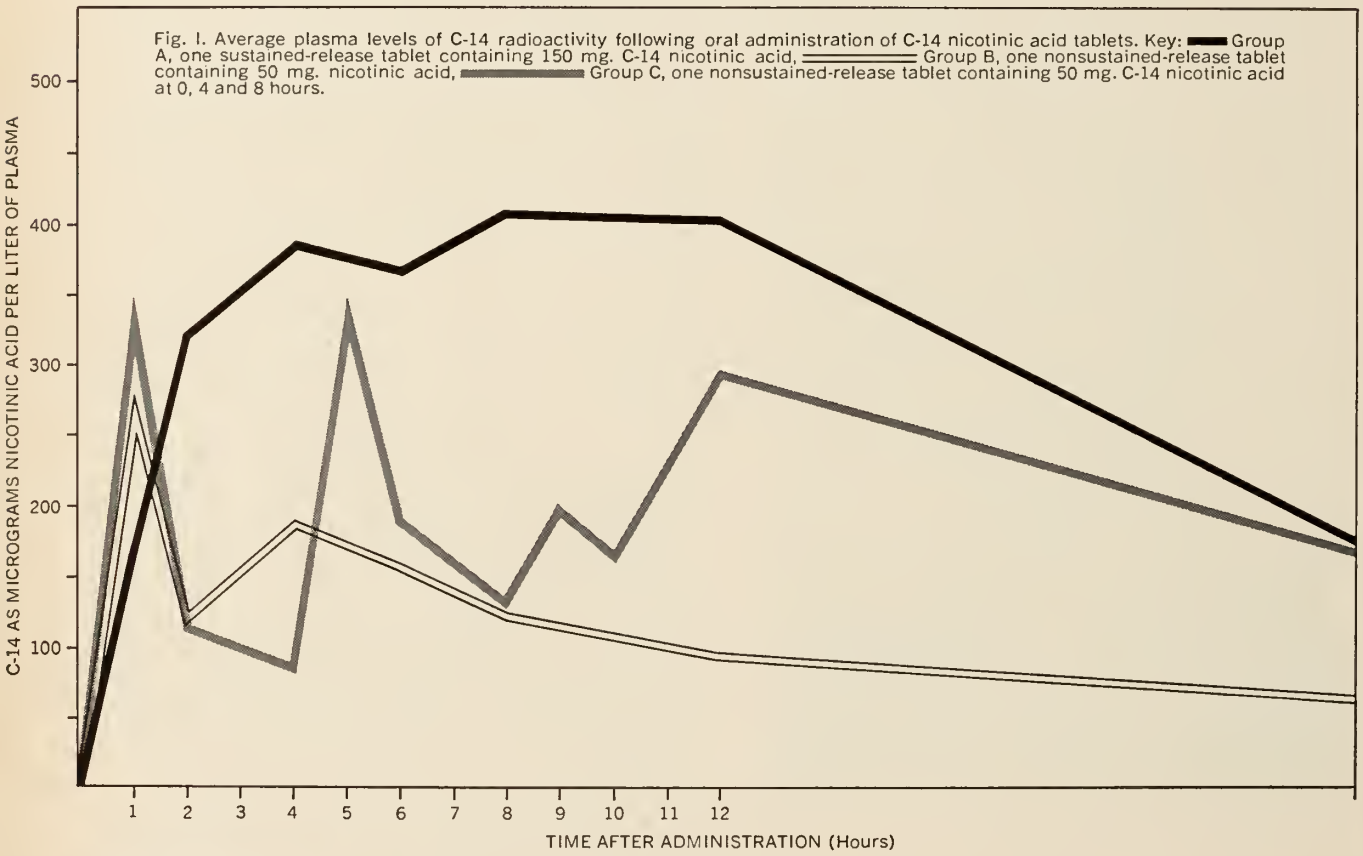
Bankston, Ingrum W., present Scottsboro, Ala., 35768, to 302 Martin St., Scottsboro, Ala., 35768.

Collins, Arthur C., present Scottsboro, Ala., 35768, to P. O. Box 370, Scottsboro, Ala., 35768.

Cromeans, Joe G., present Scottsboro, Ala.,

(Continued on Page 256)

Sustained circulatory, respiratory and cerebral stimulation for the





(fewer absent doses by absent-minded patients)

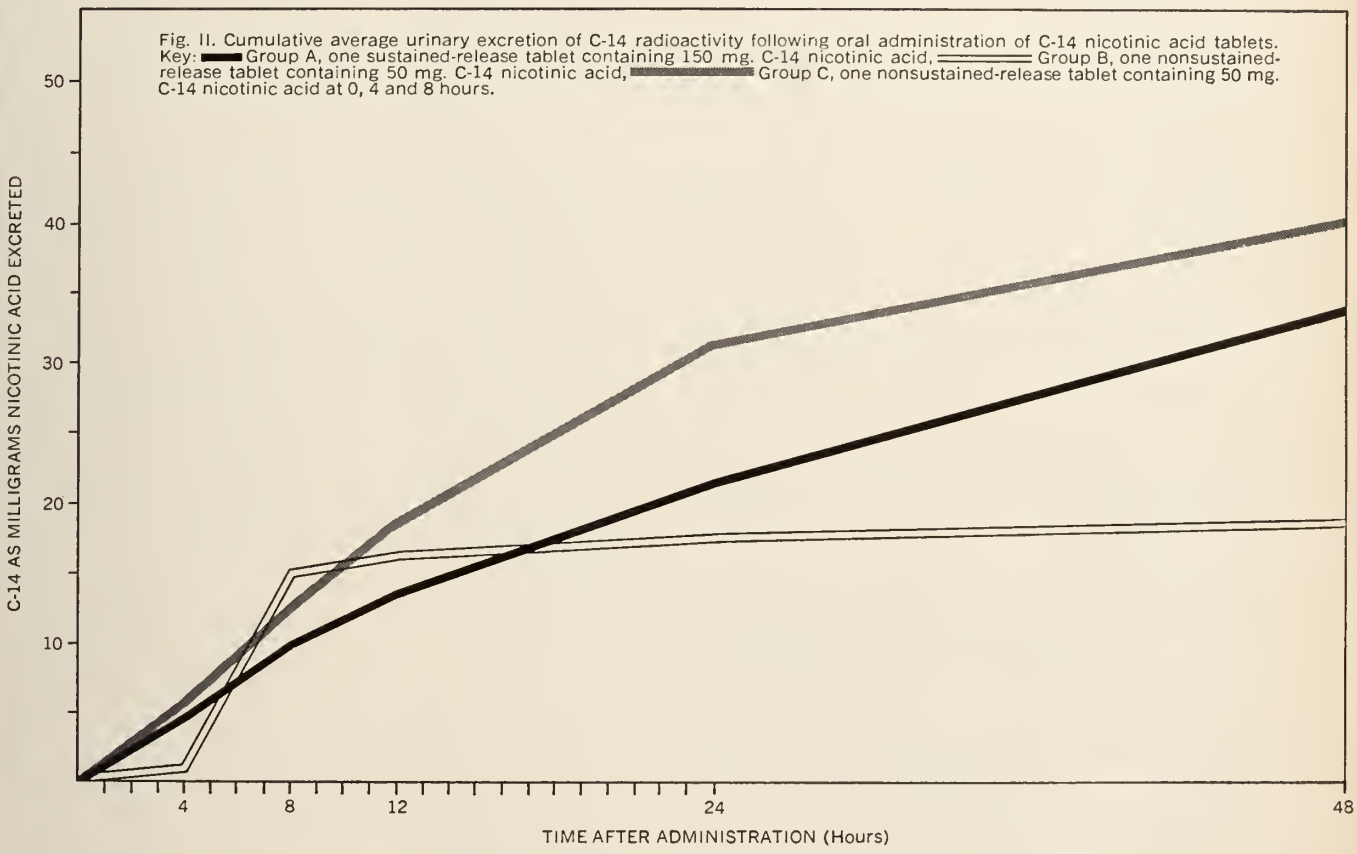
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

aged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

VITAL STATISTICS

(Continued from Page 253)

35768, to 1007-A Woods Cove Road, Scottsboro, Ala., 35768.

Hodges, Durwood M., present Scottsboro, Ala., 35768, to 307 Laurel St., Scottsboro, Ala., 35768.

Howland, Robert L., Jr., present Scottsboro, Ala., 35768, to 1504 Linda Vista Dr., Vestavia Hills, Birmingham, Ala., 35216.

Lynch, Marvin H., present Scottsboro, Ala., 35768, to P. O. Box 608, Scottsboro, Ala., 35768.

Trammell, Edward L., present Scottsboro, Ala., 35768, to 809 E. Laurel St., Scottsboro, Ala., 35768.

Jefferson County

Compton, Merrill E., Jr., present Oceanside, Calif., 92054, to 708 Castlewood Dr., Bessemer, Ala., 35020.

Crabtree, James C., Jr., present Birmingham, Ala., to Woodward Iron Co. Clinic, Woodward, Ala., 35189.

Hare, W. Kendrick, present University 35486, to Pharmacology Department, University of Ala., Birmingham, Ala., 35233.

Silberman, Donald J., present Birmingham, Ala., to 1919-7th Avenue South, Birmingham, Ala., 35233.

Lee County

Klinner, Kent V., Jr., present Opelika, Ala., 36801, to 1800 Armstrong St., Bay Minette, Ala., 36507.

Marshall County

Christopher, Neil E., present Guntersville, Ala., to 4703 Priscilla, Memphis, Tenn., 38128.

Cooper, Wiley H., III, present Albertville, Ala., 35950, to 371 Woodline Drive, Pensacola, Fla., 32503.

Mobile County

Carroll, Gordon E., present Mobile, Ala., to 2157 Airport Blvd., Mobile, Ala., 36606.

Daniels, Charles W., present Mobile, Ala., to 2451 Fillingin St., Mobile, Alabama, 36617.

Fonde, Edgar Crawford, present Mobile, Ala., to 2451 Fillingin St., Mobile, Ala., 36617.

Lane, Martin L., present Mobile, Ala., to 1604 Center St., Mobile, Ala., 36604.

Montgomery County

Garrett, Richard M., present Montgomery, Ala., 36204, to 2119 E. South Blvd., Montgomery, Ala., 36111.

Morgan County

McKenzie, Jolly, present Decatur, Ala., to 2304 Meadow Brook Rd., S. E., Decatur, Ala., 35601.

Nash, James C., Jr., present Decatur, Ala., 35601, to 407-4th Ave. S. E., Decatur, Ala., 35601.

Tune, Leon J., present Decatur, Ala., to P. O. Box 1768, Decatur, Ala., 35601.

Randolph County

Sasser, Ramon C., present Roanoke, Ala., to 612 Harpeth Bend Dr., Rt. 5, Nashville, Tenn., 37215.

Shelby County

Eddy, Corinne, S., present Montevallo, Ala., to 125 Crestview Dr., Montevallo, Ala., 35115.

Tuscaloosa County

Keating, Louis, present McKenzie, Ala., to 318-24th St., Tuscaloosa, Ala., 35401.

Correction

The name of Dr. William Evans Davis, was erroneously printed in the 1967 Roster as a member of the Lamar County Medical Society. Dr. William E. Davis, formerly a mem-

ber of Butler County Medical Society, is not on the rolls of the Association in 1967. Dr. Robert William Davis, Vernon Medical Clinic, P. O. Box 398, Vernon, Alabama, 35592, is a new member of Lamar County Medical Society, effective April 24, 1967.

Teaching Roster of Physicians

The Committee on Medical Education and Hospitals is sponsoring a mutual teaching program between physicians of the state. All doctors are teachers and many have a particular interest and ability in this regard. The Committee on Medical Education and Hospitals would like to call upon these diverse talents of the Medical Association membership to participate in teaching programs through a Teaching Roster of Physicians. This program has great potential for continuing education between colleagues within the profession and could evolve into an effective, meaningful and enjoyable program. Operating policies will be:

1. All physicians of MASA will be asked to indicate their interest in being included on the Teaching Roster and the area of teaching in which they wish to participate.

2. The Committee on Medical Education and Hospitals will work through the county medical societies.

3. Each county society will be requested to appoint an individual at the local level as coordinator of the program. Counties with few physicians may elect to join together in appointing such a coordinator.

4. Programs are to be patient oriented in the hospital setting with emphasis on clinical medicine. Programs will be the equivalent of one day or more, for example, a day or a day and half in length with not more than one-half the time being devoted to didactic presentations and at least one-half the time being spent with patient presentations and rounds. Patients may be those who are hospitalized or who have been brought in from the community for the particular program. A typical program might consist of ward rounds and patient discussion from 9 to 12 a. m., didactic presentations and discussion 1 to 3 p. m.

5. The visiting team will consist of a minimum of two physicians, the number may be increased for programs which warrant a larger number. Program arrangements must be completed at least one month or more in advance of the date selected, and a minimum of 8 to 10 physicians from the community are required as participants per program.

6. Members of the Roster will agree to participate in one program per year and to consider a second program upon request.

7. Appointments to the Teaching Roster will be for three years and subject to reappointment.

8. Not more than half the Roster will be selected from the full-time teaching faculty of the Medical College of Alabama.

9. Visiting physicians will be reimbursed at $100. per day through the local medical society, hospital, or physician group for participation and expenses incurred.

10. The coordinator appointed by the county society will select physicians from the Roster and make up the program to meet the needs of the particular community. If an individual selected has already participated for his allotted time, an alternate selection becomes necessary.

11. The county coordinator is responsible for the local arrangements, the visiting physician for preparation and supply of teaching materials.

12. The county coordinator, the Montgomery office of MASA and the Director of Continuing Education at the Medical College will work out the details of the programs.

The Growing Problem of Solid Wastes

By W. H. Kittrell, M.P.H.

The concern of Congress for the vast and growing problem of solid wastes throughout the nation was demonstrated by the passage on October 20, 1965, of Public Law 89-272, Title 2, known as the Solid Waste Disposal Act.

Among the provisions of this act are the creation within the Public Health Service of an Office of Solid Wastes, later named National Solid Wastes Program; grants-in-aid for research, development and training; grants for demonstration projects to test new methods of waste handling and disposal; and grants for state, regional and interstate surveys and planning. The law requires that, to be eligible for a planning grant, one responsible state agency must be designated by the Governor. Early in 1966 Governor Wallace so designated the Alabama Department of Public Health.



The program to eradicate the yellow fever carrying mosquito, under the direction of the Department of Health, Education and Welfare, is directed in Alabama by Alfred S. Chipley, left, above. The author of the accompanying article on solid wastes disposal, W. H. Kittrell, is shown at right.

State Survey Planned

The Alabama Department of Public Health has not yet started on a state-wide survey because of a critical shortage of qualified personnel. It is planned in the near future, probably with the help of a small federal grant, to start a state-wide survey using data forms which have just now been finalized by the USPHS and which will enable the National Solid Wastes Program to computerize the data for the entire nation. The purpose of such a survey is the development of a sound state-wide solid waste plan. Progress does not need to await the result of this survey, however. This department feels that we have sufficient information now to recommend sound improvements, especially in the field of municipal refuse handling and to make sound recommendations which will not be in conflict with an ultimate state plan.

The magnitude of the solid waste problem may be visualized from the following very recent statement from the Solid Wastes Program:

"An expanding population inevitably produces more wastes. But in the U. S., the per capita rate of solid waste generation also is rising as production and consumption increase. It is estimated that solid wastes now are generated at the rate of more than 4.5 pounds per person per day. By 1980, the figure is expected to reach 6 or more pounds. Even on the basis of conservative estimates, the country's present yearly solid waste load is probably more than 165 million tons. By 1980, the burden will be at least 260 million tons a year.

"Americans now are paying about $3 billion a year for solid waste disposal."

Mr. Kittrell is director of the Vector Control Division, Bureau of Environmental Health, Alabama Department of Public Health.

Reprinted from the Alabama Municipal Journal.

Municipal Refuse Problem

The total solid waste problem includes not only the wastes normally collected and disposed of by municipal governments, but also industrial and agricultural solid wastes. This department feels, however, that our most pressing problem is related to the domestic and commercial refuse for which most municipalities have assumed responsibility. The public health importance of municipal refuse lies mainly in its propensity for producing disease vectors: flies, rats and certain types of mosquitoes. Heavy fly breeding is associated with all open dumps whether the material is burned or not. The ability of flies to transmit enteric diseases is well known and their common nuisance value is great. Large rat populations are supported by most open dumps and they tend to spread to surrounding premises. Rats spread many human diseases in various parts of the world. The rat-borne disease with which we have had great trouble in Alabama is murine typhus, and this disease has not been eradicated. Discarded containers of various kinds which will hold rain water breed several species of mosquitoes including *Aedes aegypti* (yellow fever mosquito). The Federal Government is obligated by international agreements to try to eradicate this species. This program is operating in Alabama on a limited basis in cooperation with this department. The personnel of this program are engaged in a source reduction effort, which means sponsoring community cleanup campaigns and improvements in disposal practices. They work closely with the Vector Control Division. For these reasons the responsibility for solid waste planning in the state health department has been delegated to the Vector Control Division of the Bureau of Environmental Health. In establishing this policy it is not the intention to depreciate the importance of water and air pollution created by improperly handled solid wastes.

In a number of localities in Alabama an obvious need exists for area-wide refuse collection and disposal services through cooperative arrangements between county and municipal governments. Shelby County has taken a very progressive step in this direction and plans are being formulated for county-wide services in other counties. There will be a need, also, for some new legislation to enable districts to be formed to provide refuse services for groups of small municipalities and contiguous unincorporated areas.



PRATTVILLE'S CLEANUP CAMPAIGN is part of a mosquito eradication program conducted in ccoperation with State and Federal agencies. Left to right, above, are Marion F. Headley, Autauga County Sanitarian, Mayor C. M. Gray of Prattville, and Lenton W. Strong of the U. S. Public Health Service.

We do not foresee that any one method of disposal will ever be universally feasible. Methods will be dictated by local and regional conditions and needs. Much experimental work is under way to develop new methods of disposal. At the present time we feel that the sanitary landfill method is best for nearly all areas of Alabama. It comes nearer being a complete disposal method for mixed refuse than any of the other methods presently available such as incineration (designed to meet accepted air pollution standards) and composting. The two latter methods dispose of only parts of the refuse and the cost, even in large operations, is in the order of 3 to 5 times that of sanitary landfill disposal. We are referring, of course, to truly *sanitary* landfills. The definition and standards will be furnished gladly by this department.

(Continued on Page 262)





Tissue's healing nicely. Yet anxiety slows his steps toward recovery.

By helping overcome anxiety and tension which can thwart the convalescent's progress, EQUANIL (meprobamate) often may play an important role in medical and surgical aftercare.

Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. If an allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leucopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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(Continued from Page 259)

The Alabama Department of Public Health is available to assist municipalities throughout the state in the selection of sites and in recommending operating procedures for sanitary landfill disposals and also for establishing satisfactory practices in the storage and collection of refuse. *Inquiries should be addressed to Arthur N. Beck, Chief Engineer and Director, Bureau of Environmental Health, State Health Department,* who will refer the problems to the Vector Control Division. This department will gladly give advisory assistance to the limit of our personnel capacity, which we are actively seeking to expand.

Sanitation Survey Reports

Working in close cooperation with the state health department, the Department of Health, Education and Welfare has established a mosquito eradication program in the state of Alabama under the direction of Alfred S. Chipley. The services of this program are available to all municipalities on request free of charge. In the course of making a mosquito eradication program survey, they included other environmental sanitation factors which include surveys of housing structures, public buildings, vacant lots, refuse storage, refuse disposal, the handling of rubble, outdoor privies, junked automobiles, lumber yards, and animals in the municipality, as they relate to the public health. After making such a survey, the report includes a summary of sanitary conditions existing in the municipality. From this report and summary the municipality can take steps to improve conditions that are pointed out as needing correcting, etc. Also in this program it is possible to secure information relating to the best manner of eradicating unsanitary conditions.

Mr. Chipley works in close cooperation with Arthur Beck, Director, Bureau of Environmental Health, Alabama Department of Public Health, and may be contacted either through Mr. Beck or at Aedes Aegypti Eradication Program, 513 Madison Avenue, Room 220, Montgomery, Alabama 36104.

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Dr. S. J. Williams, Livingston, relaxing for a few minutes before the August 6 Board of Trustees meeting.



MASA Past President, Dr. J. O. Finney, Birmingham discusses with MASA President, E. Bryce Robinson, Jr., Fairfield, the Regional Medical Program.

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Dr. B. R. Boshell, Birmingham, takes a last-minute look at his report, "The Diabetes Foundation" that he presented to the Board of Trustees.

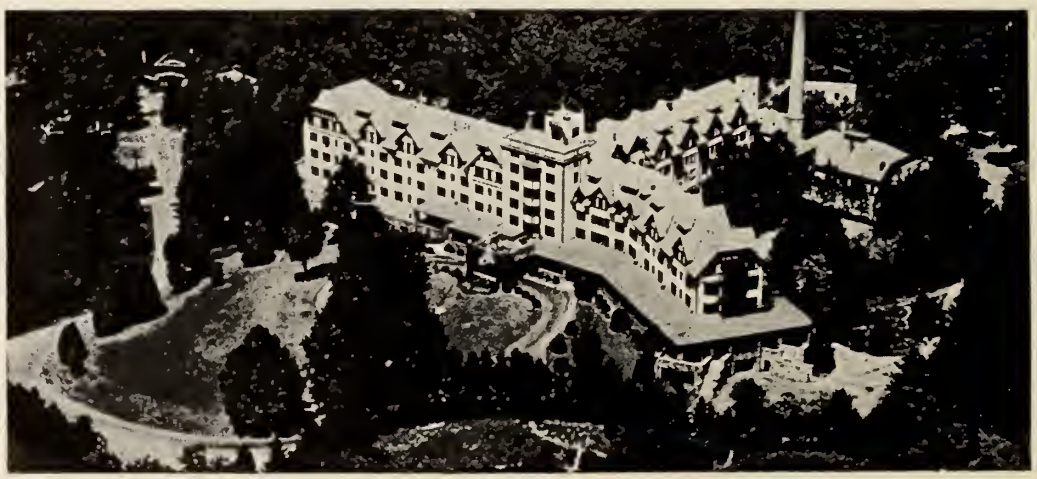


Staff members Mrs. Helen Wilson, Mrs. June Blackerby and Mrs. Kathy Summerlin lend a helping hand in straightening up the conference room when the trustees adjourned for lunch.

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DECLOMYCIN Demethylchlortetracycline should be equally or more effective than other tetracyclines when the offending organisms are tetracycline-sensitive.

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Warning—In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth — dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

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AMA Reaffirms Support of All Nursing Education Programs

The American Medical Association's policy-making House of Delegates has reaffirmed the Association's support of all forms of nursing education programs.

At its June 1967 biannual session in Atlantic City, the House adopted the following statement on nursing education:

Whereas, The American Medical Association is on record to "continue its support of *all* current nationally approved educational programs for nurses;" and

Whereas, The national trend which is supported by the professional nurses' associations appears to be the gradual phasing out of the diploma schools of nursing and the transfer of nursing education to collegiate institutions; and

Whereas, 70 per cent of nursing care at the present time is rendered by graduates of diploma schools with the demand for such nurses continuing to exceed the supply; and

Whereas, There is general professional agreement on the need for inclusion of nursing education in community health planning with provision for greater use of in-hospital training as well as training in collegiate institutions, therefore, be it

Resolved, That the American Medical Association reaffirms its support of all forms of nursing education including baccalaureate, diploma, associate, and practical nurse education programs; and be it further

Resolved, That those hospitals that conduct diploma schools of nursing be commended for the great contribution being made by these institutions to the health needs of the nation; and be it further

Resolved, That such hospitals be urged to continue their schools and increase enrollment while allowing the individual to choose the kind of nursing education he or she desires; and be it further

Resolved, That the American Medical Association take appropriate action in consultation with professional nurses' associations and the American Hospital Association to encourage increasing enrollment in diploma schools and at the same time improve educational standards.

1967 Calendar of Events

September 17-19

The Tenth Medical Progress Assembly sponsored by the Birmingham Academy of Medicine, will meet in Birmingham at the Parliament House.

September 17

The Pediatric Postgraduate Symposium-1967. Auditorium, Engineering Building, 1919 Eighth Avenue, South Birmingham.

September 18-21

American Academy of General Practice will hold its 19th Annual Scientific Assembly at the Statler-Hilton Hotel in Dallas, Texas.

September 25-26

The 27th Annual Congress on Occupational Health will be held in Atlanta, Georgia at the Regency Hyatt House.

September 29-30

The American College of Physicians Regional Scientific Meeting will be held at The Cloister, Sea Island, Georgia.

October 2-3

Tennessee Valley Medical Assembly, Memorial Auditorium, Chattanooga, Tennessee, Davis P. McCallie, M. D., chairman, 107 Interstate Building, Chattanooga, Tennessee.

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THE JOURNAL

of

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Published Under the Auspices of the Board of Censors

Volume 37 September, 1967 No. 3

Erythrocyte Rouleaux, A Normal, Mechanical, Protective Device Against Thrombosis An Hypothesis

J. H. Rogers, M. D.

Gadsden, Alabama

"When blood is shed the platelets agglutinate quickly into masses which subsequently undergo disintegration and more or less complete solution The same agglutination occurs within the blood vessels if the inner surface of the blood vessels is injured, or if a foreign body is introduced. In the latter case the platelets adhere to the foreign surface and to one another, building up a thrombus unless swept off by the blood stream."[1]

Few would deny the importance of this sweeping action in removing platelet clumps from injured vessel walls. This normal process therefore prevents the initiation and growth of mature white thrombi; and consequently, thrombi generally.

The hypothesis presented here suggests that this sweeping action is made more efficient by rouleaux formation in red blood cells and that rouleaux are a normal response to the threat of thrombosis. It is postulated the larger, heavier, irregularly sized particles of stacked red cells are more apt to dislodge clumps of platelets from injured vessel walls in the turbulent flow of blood almost certainly present in arteries and likely present in veins. Similarly, rouleaux may better deny platelets access to injured endothelium than single red cells.

Rouleaux formation in vitro is expressed by an elevated sedimentation rate and reflects changes in the plasma proteins consisting usually of raised fibrinogen and globulin levels and lowered albumin. These changes in some way alter the surface electrical charges of red cells causing them to clump in their characteristic manner.

If rouleaux formation is an important factor in the prevention of thrombosis, and particularly arterial thrombosis, coronary thrombosis should be relatively uncommon in medical conditions and other situations in which the sedimentation rate is elevated. This is true in tuberculosis,[2, 3, 4] leprosy,[5] pul-

From the Holy Name of Jesus Hospital, Moragne Park, Gadsden, Alabama.

monary emphysema,[6, 7] multiple myeloma,[8] cirrhosis of the liver,[9, 10] rheumatoid arthritis,[11] healthy native populations in certain tropical underdeveloped countries,[12, 13] and healthy premenopausal women. Moreover pulmonary embolism has been found to be relatively rare in tuberculosis,[2, 3, 4] leprosy,[5] multiple myeloma,[14] cirrhosis of the liver,[15] subacute bacterial endocarditis (non-septic pulmonary embolism)[16, 17] and some healthy native populations in tropical underdeveloped countries.[13] (Parenthetically these observations support the Rokitansky-Duguid-Astrup thrombogenic theory of atherosclerosis).

Gestation is a normal physiological condition in which the sedimentation rate (and rouleaux formation) increases steadily as pregnancy advances. In the author's view, previously expressed,[18] venous congestion and pressure in the pelvis and legs, with possible traumatic endothelial injury in the second and third trimesters should lead to a high incidence of venous thrombosis and pulmonary embolism at these times. Apparently this does not occur.[19] Furthermore coronary thrombosis in pregnancy appears to be an extremely rare complication.

Sickle cell anemia is a disease in which rouleaux cannot form due to the abnormal shape of the red cells. The common mode of death in this condition is some thrombotic complication. In this connection it should be noted that the usual explanation for these thrombotic events is increased viscosity of the blood. Paradoxically, some of the conditions listed above with low incidences of coronary thrombosis or thrombo-embolism exhibit high blood viscosity. It has been postulated that the increased coagulability that may be seen in sickelemia may be due to red blood cell disruption, which releases large amounts of thromboplastin.[20] Further erythrocyte disruption releases adenosine diphosphate which causes platelet aggregation. Rouleaux, by diminishing the exposed red cell surface should reduce the mechanical disruption of red cells which also occurs normally, thus providing another means by which thrombosis may be inhibited.

Healthy old people frequently show relatively high sedimentation rates.[21] This should be expected if the hypothesis offered here is correct. Enough old people would be spared an earlier death due to heart attacks to allow them to arrive at an older age group.

A hazard of thrombosis is extension of the thrombus. Even if death does not ensue, this process eventually stops for no known reason. It is altogether consistent with this hypothesis that the sedimentation rate (and rouleaux) rise in response to thrombosis.

Changes in plasma proteins leading to rouleaux formation and increased sedimentation rates may retard thrombosis in other ways such as diminished platelet stickiness, diminished clot retraction, complexing of clotting factors with abnormal or increased globulins and increased fibrinolytic activity.[22] Still others have been suggested and will not be dealt with here. Certainly the manner in which Nature strives so successfully to meet the changing threat of thrombosis is exceedingly complex.

The practical importance of pursuing the lines of investigation suggested here is obvious, particularly since inducing the changes in plasma proteins responsible for rouleaux formation is theoretically quite simple.[2, 14, 16] Repeated injections of foreign protein of some type would probably do—or the deliberate induction of some form of low grade infection. The possibility of immunization against heart attacks is too important to allow any clue to be ignored.

The importance of the thrombus in the genesis of heart attacks is probably greatly underestimated due to the fact that intense blood fibrinolytic activity develops after sudden death from any cause, which should lead to the dissolution of many coronary thrombi before autopsy is performed.[23]

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Standardization of the Histoplasmin Tine Test

Irl R. Long, M. D.,* Gordon Personeus, Donald W. McCoy, Ph. D. and
Marjorie A. Darken, M. A.

Lederle Laboratories, a Division of American Cyanamid Company,
Pearl River, New York

Introduction

The causative organism of histoplasmosis, *Histoplasma capsulatum*, was first described and named in 1906 by Darling[1] who isolated the "bacterium" from the spleen of three patients who had died. It was not until 1934, however, that Dodd and Tompkins[2] described the first case of histoplasmosis diagnosed before death and DeMonbreun[3] cultured the organism and identified it as a fungus. Both the yeast and mycelial phases of this dimorphic species apparently share common antigens.[4]

The fungus is a natural inhabitant of the soil and was first isolated from soil samples by Emmons.[5] It thrives in areas contaminated with avian excreta. Soil studies and skin test surveys have definitely established that distribution is worldwide as pointed out by Ajello,[6] Edwards and Klaer,[7] and Pappagianis.[8] In his review of the epidemiology, Furcolow[9] comments that growth of the organism appears to be limited to specific geographic zones by conditions of temperature and humidity and that the organism does not grow in a uniformly distributed manner. The role of soil types and climate upon the prevalence of *H. capsulatum* in soils has been thoroughly reviewed by Ajello[6] in his study of the ecology of respiratory mycotic disease agents.

The disease is generally believed to be transmitted to man from the natural environment, and the clinical picture appears to be affected by the frequency and degree of exposure to infection. The actual frequency of infection, as judged by the results of skin tests with histoplasmin, varies widely within short distances since the prevalence of reactors in different segments of the population has ranged from zero to over 90 per cent. It has been estimated by Furcolow[10] that 500,000 persons a year acquire this infection, and Furcolow *et al*[11] suggest that there are thousands of cases of chronic active histoplasmosis in sanatoria throughout the United States. The belief that the disease is limited in the United States to the Middle Western region appears to be without basis. Chase and Campbell[12] have reviewed the publications of Aronson and Taylor,[13] Edwards *et al*,[14] Emmons *et al*,[15] Mattern *et al*,[16] and Palmer[17] on the incidence of reactions to histoplasmin. They conclude, on the basis of these findings and of their own survey, that histoplasmosis is probably as prevalent in some of the Middle Atlantic states as in any other part of the country.

The first histoplasmin skin test antigen for diagnostic use in humans was developed by Van Pernis *et al*[18] and Zarafonetis and Lindberg[19] in 1941; this was based on the demonstration of bacterial type hypersensitivity in experimentally infected animals. The current standard test for histoplasmin sensitivity (Mantoux technique) consists of the intradermal administration of standard antigen diluted in buffered saline. This standard antigen was prepared in 1949 as lot H-42 by the Tuberculosis Division of the United States Public Health Service, and a 0.1 ml injection of a 1:100 dilution has been

* Southern Food and Drug Research, Incorporated, Montgomery, Alabama.

accepted as satisfactory for skintesting studies.[20] The lot appears to have lost none of its potency, and several hundred thousand tests have been given with this preparation.

The Histoplasmin Tine Test is a simple, disposable intradermal test which is easily applied. Preliminary results indicate consistent interpretable reactions closely correlated to those obtained with the more cumbersome standard intradermal test.[21] It is the purpose of this paper to present the details of this technique, the standardization of the antigenic material in animals and humans, and the noninduction of skin sensitivity in negative human reactors by repeated challenge.

Histoplasmin Tine Test

Each Tine Test unit consists of a stainless steel disc attached to a plastic handle. Projecting from the disc are four triangular shaped prongs, or tines, which are 2 mm long and approximately 4 mm apart. The tines have been dipped into 15 x concentrated histoplasmin solution having a potency 30-32 times the standard antigen preparation and stabilized with Acacia U. S. P. (Gum Arabic) and lactose. The effectiveness of the tine unit is believed to be equivalent to that of the 1:100 dilution of the standard reference material, USPHS Histoplasmin, in the intradermal test. The tines have been dried and sterilized by ethylene oxide. The unit is disposable and there is no need for syringes, needles, and other equipment necessary for the standard intradermal test. As in the Mantoux test, the mycelial phase of the organism has been used in the preparation of this antigen.

The volar surface of the mid-forearm is the preferred site for histoplasmin testing. The skin must be clean and dry. The site may be cleansed with alcohol, acetone, ether, or soap and water. Grasp the arm firmly with one hand, stretching the skin of the forearm tightly, and apply the Tine Test unit with the other hand. Hold for one second and withdraw. Sufficient pressure should be exerted so that the four puncture sites and a circular depression of the skin from the plastic base are visible. The unit should then be discarded. Tests should be read at 48 hours. Induration is the only criterion; erythema is ignored. A diameter of 2 mm or more of palpable induration around one or more puncture sites is considered a positive reaction and is equivalent to 5 mm or more by the standard Mantoux test.

For titrating and comparing histoplasmin antigens, guinea pigs without infection were artificially sensitized. This method was reported by Smith *et al*[22] who found three consecutive injections of killed antigen to be necessary and by Smith and Noel[23] who refined the procedure so that satisfactory sensitization was obtained with a single injection. The degree of sensitization following injection by antigen into the foot pad was essentially the same in their preliminary tests as that obtained by infection of the animals with intraperitoneal injections of living organisms. The high level of sensitization necessary to standardize histoplasmin was not, however, regularly obtained in our laboratories by this procedure, and considerable local irritation and swelling was observed in many of the guinea pig feet. Additional research has established the superiority for artificial sensitization of an injection of histoplasmin antigen behind each ear via the subcutaneous route.

Fifty guinea pigs, each weighing 300 to 400 grams, were sensitized using a freshly prepared histoplasmin suspension made from concentrated histoplasmin antigen diluted to ten times the concentration of the USPHS standard with pyrogen-free water. This was then diluted 1:1 with incomplete Freund's adjuvant before injection. These animals were divided into three groups on the basis of the method of sensitization:

Group I: 13 guinea pigs, 0.2 ml subcutaneously (0.1 ml behind each ear on side of neck)

Group II: 12 guinea pigs, 0.5 ml subcutane-

ously (0.25 ml behind each ear on side of neck)

Group III: 25 guinea pigs, 0.2 ml into foot pad (0.1 ml into each hind leg pad)

Eight, ten, and twelve weeks following sensitization all animals were skin tested with the USPHS Histoplasmin Reference Standard using 0.1 ml injections of 1:10, 1:20, 1:40, 1:80, and 1:160 dilutions in physiological saline.

To determine the relative efficacy of the three sensitized groups, certain criteria were chosen as indicative of a positive skin reactor. The basis for this selection was that the five test dilutions must produce a range of graded skin reactions of not less than 14 x 14 mm at the low dilution (1:10) to not less than 7 x 7 mm at the highest dilution (1:160). These criteria yielded sensitive test animals and a dose response curve similar to that of the tuberculin assay.

A 0.25 ml subcutaneous injection behind each ear was selected as most satisfactory, with 50 per cent of the animals showing positive reactions by the 10th week; 33 per cent of those given the antigen by the foot-pad technique were positive at that time. A summary of the results obtained with this group of 50 guinea pigs using the USPHS Reference Standard is presented in Table I. The average reaction size for the 8th and 10th week challenges, as given in Table II, shows the dose-response curve obtained on the 10th week following each of the sensitization procedures. Data indicate no significant difference between the size of the reaction and the route of sensitization. Repeated intradermal tests with production concentrates of histoplasmin antigen have given reproducible results in different sensitized groups of guinea pigs.

Animals not showing positive skin reactions to histoplasmin antigen at the end of 12 weeks did not become positive on later challenge. We therefore consider it useless to hold any animals not becoming positive reactors in that length of time.

TABLE I

Comparison of per cent positive histoplasmin reactors following artificial sensitization of guinea pigs with the subcutaneous and foot-pad techniques

Group Number	Sensitizing Dose	No. of Animals	Per Cent Positive Reactors		
			8th Week	10th Week	12th Week
I	0.2 ml subcutaneous	13	15%	46%	42%
II	0.5 ml subcutaneous	12	25%	50%	42%
III	0.2 ml foot-pad	25	13%	33%	20%

TABLE II

Comparison of the size of reaction to histoplasmin antigen following artificial sensitization of guinea pigs with the subcutaneous and foot-pad techniques

Group Number	0.1 ml of Dilution Injected	8th Week—24 Hour Av. Reaction Size (mm)	10th Week—24 Hour Av. Reaction Size (mm)
I	1:10	16 x 16	16 x 16
	1:20	13 x 14	13 x 14
	1:40	11 x 12	12 x 12
	1:80	9 x 9	9 x 10
	1:160	8 x 8	9 x 9
II	1:10	15 x 17	16 x 17
	1:20	13 x 14	14 x 14
	1:40	12 x 13	11 x 12
	1:80	10 x 11	10 x 10
	1:160	9 x 10	8 x 9
III	1:10	16 x 18	16 x 17
	1:20	12 x 13	13 x 14
	1:40	11 x 12	11 x 12
	1:80	10 x 10	10 x 10
	1:160	9 x 10	8 x 9

A histoplasmin preparation made in our laboratories was compared with the USPHS Reference Standard in guinea pigs previously sensitized by subcutaneous injections of 0.25 ml behind each ear. The USPHS standard was diluted 1:15, 1:30, 1:60, 1:120, and 1:240 before the injection of 0.1 ml. The test

TABLE III

Comparison of reactions obtained with USPHS and Lederle histoplasmin antigen in artificially sensitized guinea pigs

USPHS HISTOPLASMIN							LEDERLE HISTOPLASMIN						
	Reaction Size (mm)					Average Reaction Size		Reaction Size (mm)					Average Reaction Size
Dilution	Animal 1	Animal 2	Animal 3	Animal 4	Average	(mm^2)	Dilution	Animal 1	Animal 2	Animal 3	Animal 4	Average	(mm^2)
1:15	18x18	20x20	16x16	17x17	18x18	324	1:48	19x20	20x20	16x16	17x17	18x18	324
1:30	16x16	17x18	13x13	15x16	15x16	240	1:96	17x18	16x16	12x13	16x16	15x16	240
1:60	12x12	12x13	10x11	14x15	12x13	156	1:192	13x13	12x13	10x11	12x12	12x12	144
1:120	10x11	10x11	8x9	11x11	10x11	110	1:384	10x12	10x10	9x9	11x11	10x11	110
1:240	8x8	7x9	7x8	10x10	8x9	72	1:768	9x9	8x8	7x8	8x9	8x9	72

preparation was diluted 1:48, 1:96, 1:192, 1:384, and 1:768 before injection of 0.1 ml. Each dilution was injected into four animals. The test material was found to be three times as potent as the USPHS Reference Standard; a 1:300 dilution was equivalent to a 1:100 dilution of the USPHS Reference Standard as shown in Graph I and Table III.

Since guinea pigs were artificially sensitized by injection with histoplasmin antigen, the possibility of induced skin sensitivity in humans was investigated. Thirty-three normal individuals who did not react to intradermal histoplasmin were selected to be given a Histoplasmin Tine Test once a month for four consecutive months using a 1:300 dilution of the antigenic material prepared in our laboratories. From the results obtained, it is concluded that there is no evidence to indicate that skin sensitivity to histoplasmin was consistently induced by repeated skin testing with a Histoplasmin Tine Test. One subject, who was positive to the Tine Test in the first month, was shown to be negative to the intradermal test and subsequently negative to the Tine Test on repeated challenge. This probably represents a false positive Tine Test on the initial application. Another individual, who was reported negative to the Tine Test in the first month, was subsequently shown to be positive to the same test during the next three months, and it is assumed that this represents a false negative Tine Test on the first application rather than a true conversion from negative to positive reactor. All other subjects were negative throughout.

This same histoplasmin preparation lot from our laboratories was compared in humans via the intradermal route at a dilution of 1:300 with the USPHS Reference Standard at a dilution of 1:100. Two hundred normal, Caucasian male individuals were simultaneously tested with our preparation and with the USPHS material. Each received four intradermal injections, two of 0.1 ml of each antigen (two dilution lots of the same antigenic material), and the sites

Graph I

Comparison of Reactions Obtained in Artificially Sensitized Guinea Pigs with USPHS and Lederle Histoplasmin Antigens

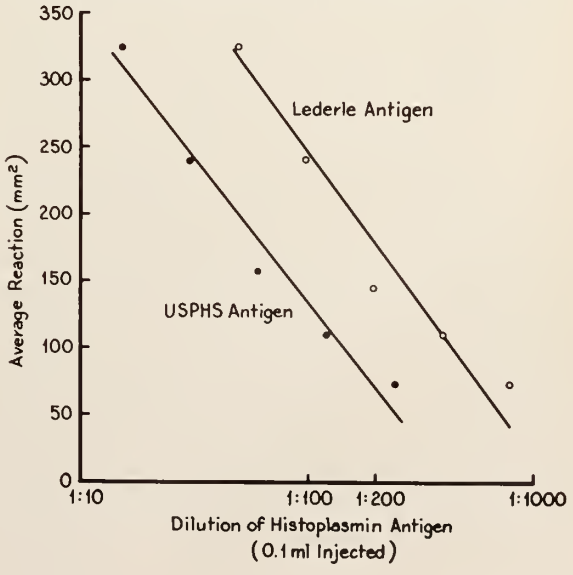


TABLE IV

Internal agreement of USPHS and Lederle histoplasmin antigen in humans 48 hours after intradermal injection

U. S. P. H. S. 785

U. S. P. H. S. 672	—	+	Total
—	103	9	112
+	6	77	83
	109	86	195

False negative 6/83=7.2%
False positive 9/112=8.0%
Per cent agreement 92%

LEDERLE 898

LEDERLE 620	—	+	Total
—	103	16	119
+	9	70	79
	112	86	198

False negative 9/79=11.4%
False positive 16/119=13.4%
Per cent agreement 88%

of application were randomized. Observations regarding erythema and induration at each site were made at 24, 48, and 72 hours after injection. Each application site was read independently of the other sites so that four readers were used; none knew the nature of the material applied at the specific site read. Induration of 5 mm or more at any one test site was considered a positive reaction.

Data indicate that a 1:300 dilution of the material prepared in our laboratories is equivalent in strength to the USPHS Reference Standard at a 1:100 dilution. The internal agreement 48 hours after injection was 92 per cent in the case of the USPHS preparation and 88 per cent in our material. There were 7.2 per cent false negative and 8.0 per cent false positive reactions in the USPHS antigen, and 11.4 per cent false negative and 13.4 per cent false positives in our antigen as shown in Table IV. The agree-

TABLE V

Agreement between USPHS and Lederle histoplasmin antigen in humans 48 hours after intradermal injection

U. S. P. H. S. 785

LEDERLE 898	—	+	Total
—	102	9	111
+	9	75	84
	111	84	195

False negative 9/84=10.7%
False positive 9/111=8.1%
Per cent agreement 91%

U. S. P. H. S. 785

LEDERLE 620	—	+	Total
—	106	10	116
+	6	73	79
	112	83	195

False negative 6/79=7.6%
False positive 10/116=8.6%
Per cent agreement 92%

U. S. P. H. S. 672

LEDERLE 898	—	+	Total
—	102	7	109
+	12	76	88
	114	83	197

False negative 12/88=13.6%
False positive 7/109=6.4%
Per cent agreement 90%

U. S. P. H. S. 672

LEDERLE 620	—	+	Total
—	104	14	118
+	9	70	79
	113	84	197

False negative 9/79=11.4%
False positive 14/118=11.8%
Per cent agreement 89%

TABLE VI

Comparison of the induration obtained by four readers on 61 individuals positive to both Lederle and USPHS histoplasmin antigen 48 hours after intradermal injection (duplicate dilutions of same material)

Lot	Reader	Number	Induration Average Area (mm^2)	
Lederle 620 (1:300)	A	12	94.2	
	B	14	68.2	
	C	18	113.0	
	D	17	213.3	
	TOTAL	61	127.0	128.1 mm^2 (122 sites)
Lederle 898 (1:300)	A	17	115.1	
	B	17	108.6	
	C	15	118.9	
	D	12	183.4	
	TOTAL	61	129.3	
USPHS 785 (1:100)	A	16	111.9	
	B	17	85.5	
	C	11	78.9	
	D	17	229.2	
	TOTAL	61	129.6	138.8 mm^2 (122 sites)
USPHS 672 (1:100)	A	17	139.0	
	B	12	67.5	
	C	18	151.2	
	D	14	231.9	
	TOTAL	61	148.2	

ment between both antigens was of similar magnitude and ranged from 89 to 92 per cent. The incidence of false negatives ranged from 7.6 to 13.6 per cent and false positives from 6.4 to 11.8 per cent. These data are given in Table V. The average area of reactivity produced in 48 hours by both antigens in the 61 individuals who were positive at all four test sites are also in close agreement in spite of definite reader variation. The average area of induration produced by the USPHS material was 138.8 mm,^{2} and by our preparation it was 128.1 mm^2 in the same individuals. Data are presented in Table VI.

Summary

Details of the Histoplasmin Tine Test procedure and the potency standardization of the antigenic material have been presented. For standardization, guinea pigs were artificially sensitized by the subcutaneous route which appeared to be superior to the foot-pad method. Care was taken in the proper selection of sensitized animals using only those that exhibited a typical graded response. On the basis of animal dose-response curves and intradermal test reactions in humans, a 1:300 dilution of histoplasmin antigen prepared in our laboratories was equivalent in strength to a 1:100 dilution of the USPHS Reference Standard. Repeated tine testing in humans did not evoke induced skin sensitivity when applied once a month for four consecutive months.

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Correlation Between the Histoplasmin Tine Test and the Standard Histoplasmin Intradermal Test

Thomas S. Hosty, Ph. D.,* Otto Burton, M. D.,** Hugh Macdonald, M. D.***
and Marjorie A. Darken, M. A.

Introduction

This investigation presents a comparison of the reactions obtained with the Histoplasmin Tine Test[1] and the standard intradermal histoplasmin test on 496 individuals at Mt. Meigs Industrial School in Montgomery County, Alabama; of these, 455 were adolescents ranging in age from 12 to 17 years. In a previous study on adolescents in Wilcox County, Alabama, Hosty and Mitchell[2] reported the incidence of positive reactors to histoplasmin antigen to be 59 of 340 or 17 per cent as evidenced by the standard intradermal histoplasmin test. The earlier survey was considered to be a prototype for future histoplasmin testing programs, and the present study is a continuation of this project. When the Histoplasmin Tine Test became available for clinical trial, this simpler test procedure was incorporated into the protocol on a direct comparison basis.

Procedure

The Histoplasmin Tine Test and the standard histoplasmin intradermal test were given simultaneously on the volar surface of each forearm to 496 negro individuals on an alternating basis. Thus half received a specific test on the right arm and half on the left arm. For the intradermal test, 0.1 of a 1:300 dilution of histoplasmin antigen prepared in our laboratories and standardized against lot H-42 of USPHS was injected. For the Tine Test, units were dipped into 15x concentrated histoplasmin antigen solution having a potency 30-32 times the USPHS standard antigen preparation. The resulting indurations were measured at the end of 48 hours; each arm read independently of the other. Those reactions of 5 mm or more on the intradermal test and 2 mm or more on one or more of the tine points were recorded as positive.

Results

Of the 496 individuals tested for histoplasmin sensitivity by the Tine Test and the standard intradermal histoplasmin test, 126 or 25 per cent reacted positively to both test procedures; and 339 or 68 per cent were negative to both. Thus the agreement between these two tests was 94 per cent. Nine individuals were positive to the intradermal test only, and 22 were positive to the Tine Test only. In terms of the intradermal test, the Tine Test gave nine of 135 or 6.6 per cent false negatives and 22 of 361 or 6.0 per cent false positives. On the basis of the intradermal test, 135 of 496 or 27 per cent were positive reactors; on the basis of the Tine Test, positive responses occurred in 148 of 496 or 30 per cent. A total of 157 of 496 or 32

* Bureau of Laboratories, State of Alabama Department of Public Health, Montgomery, Alabama.

** Montgomery County Health Center, Montgomery, Alabama.

*** Lederle Laboratories, a Division of American Cyanamid Company, Pearl River, New York.

TABLE I

Comparative Zones of Induration 48 Hours Following Histoplasmin Testing

NUMBER OF INTRADERMAL TEST RESPONSES	NUMBER OF TINE TEST RESPONSES								
	0 mm	1 mm	2 mm	3 mm	4 mm	5 mm	6-10 mm	11-20 mm	TOTAL
0 mm	286	24	11						321
1 mm	6	1							7
2 mm	8	3	3	2					16
3 mm	3	2	1						6
4 mm	4	2	2	1		1	1		11
5 mm	1	2	1	3			1		8
6-10 mm	1	4	25	22	12	2	6		72
11-20 mm		1	15	17	8	2	9	1	53
21-30 mm			1					1	2
TOTAL	309	39	59	45	20	5	17	2	496

TABLE II

Distribution of Positive Reactors to Histoplasmin Antigen

Age	MALE			FEMALE		
	Number Tested	Number Positive	Per Cent Positive	Number Tested	Number Positive	Per Cent Positive
12	17	1	6%	12	3	25%
13	59	13	22%	21	4	19%
14	97	26	26%	14	6	43%
15	112	33	29%	25	7	28%
16	62	20	32%	13	7	54%
17	18	10	55%	5	4	80%
18-20	3	1	33%	1	0	0%
21-30	4	3	75%	2	0	0%
31-40	4	2	50%	4	3	75%
41-50	3	3	100%	3	2	66%
51-60	1	1	100%	4	4	100%
61+	3	3	100%	2	0	0%
NS	4	1	25%	3	0	0%
TOTAL	387	117	30%	109	40	37%

per cent reacted to either or both tests. These results are diagrammed below:

I. D. \ TINE	—	+	Total
—	339	22	361
+	9	126	135
	348	148	496

False negative 9/135=6.6%
False positive 22/361=6.0%
Per cent agreement 94%

The average extent of induration in 48 hours was 9.7 mm for the intradermal test and 3.0 mm for the Tine Test; the frequency distribution of the reaction size for each test is presented in Table I. The age and sex distributions of the 157 individuals having a positive reaction to either or both tests are given in Table II.

Excluding 34 individuals over 17 years of age and seven for whom the age was unspecified, 455 adolescents were tested for histoplasmin sensitivity. Of these, 108 or 24 per cent were positive to both tests and 325 or 72 per cent were negative to both tests; 134 or 29 per cent evidenced positive reactions to either or both tests.

Summary

The Histoplasmin Tine Test was compared with the standard intradermal histoplasmin test in 496 negro individuals in Alabama. Close correlation was obtained with 6.6 per cent false negatives and 6.0 per cent false positives for the Tine Test using the intradermal test as criterion. Positive reactions to both tests were observed in 126 individuals or 25 per cent, and 339 or 68 per cent were negative to both tests. The agreement between these test procedures was 94 per cent.

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Scientists Seek to Convert Food Waste into Potential Food Materials

University of Maryland scientists have started research under a Public Health Service grant to develop human foods and animal feeds from some of the millions of tons of wastes generated yearly by the food-processing industries.

The project at College Park is one of 17 for which grants totaling $784,000 were announced today to support research aimed at reducing pollution from agricultural, municipal, and industrial solid wastes.

The $52,400 University of Maryland grant is to cover first-year costs of a project expected to run for three years. The grant was awarded by the Solid Wastes Program in the Public Health Service's National Center for Urban and Industrial Health.

More than $2,110,000 has been committed for grant-supported research in the 18 months since the Program launched a national attack on health-hazardous, landscape-blighting solid waste disposal practices. Thirty-nine research projects are now active under Solid Wastes Program grants.

Earlier phases of the Maryland research will seek economically to convert into food or food additives for humans and domestic animals, tomato wastes, including vines, leaves, and green and overripe tomatoes, and whey from cottage cheese processing. It is estimated that tomato wastes alone represent about 10 million tons of potential food material which either rots in the fields every year or accumulates as waste near processing plants.

"Reduction of wastes at the source by making them into commercially useful products is a major need as the United States' solid wastes burden steadily grows with rising production and consumption," Leo Weaver, Chief of the Solid Wastes Program, said. "To help fill this essential need is the purpose of much of the research, such as that at the University of Maryland, being conducted under Solid Wastes Program grants."

University researchers will evaluate wastes from tomato harvesting and processing by chemical, biological, and nutritional techniques. They will study characteristics of the entire plant when prepared as ensilage for cattle fodder. The scientists also will seek to derive a protein concentrate for human and animal food from waste tomatoes. In addition, they will try to obtain from green fruit, vines, and leaves a chemical known as tomatin which may have value as a fungicide and as an agent for controlling excess blood cholesterol, believed to be a factor in heart disease.

Cottage cheese whey, which is known to have good nutritional value, will be investigated for conversion into a variety of foods or food additives. The production of dehydrated whey as an animal feed will be evaluated. Techniques also will be sought for using whey in the commercial preparation of gelatines, sherbets, and baby foods and as condiments for use in soups, sauces, and salad dressings.

Similar uses for cheddar cheese whey also will be studied. Other research will explore the production of foods, animal feeds, and other products from wastes generated in harvesting and processing lima beans and sweet potatoes.

Dr. Amihud Kramer, Professor of Horticulture in the University of Maryland Department of Horticulture, is the principal investigator on the University's food wastes research project.

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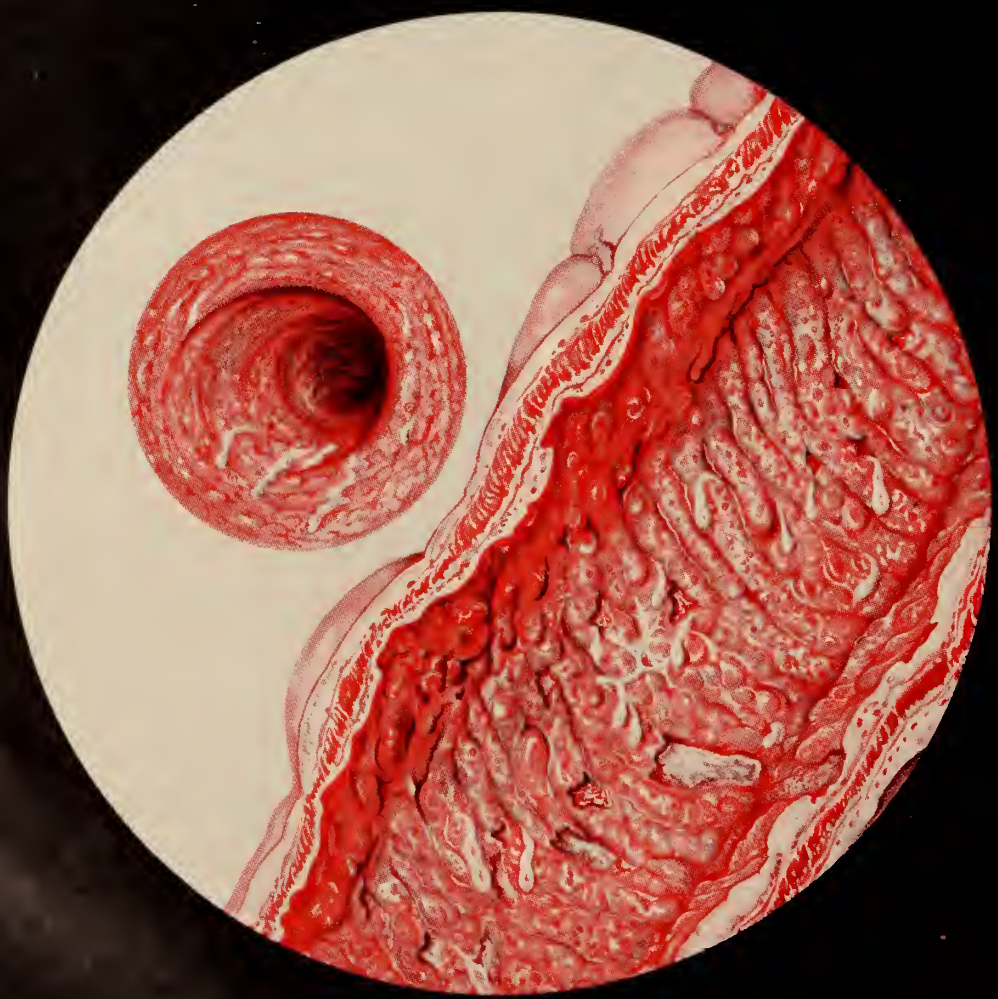
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diphenoxylate hydrochloride 2.5 mg.
(Warning: May be habit forming)
atropine sulfate 0.025 mg.

controls diarrhea

In six published studies[1-6] detailed results are given on the use of Lomotil in 111 patients with chronic ulcerative colitis. They show that Lomotil gave satisfactory to "excellent" control of diarrhea in more than two-thirds of these patients. As the disorder advances and destroys bowel musculature, the motility-lowering action of Lomotil, understandably, has less effect.

The successful use of Lomotil in a disorder as exceedingly difficult to treat as moderate ulcerative colitis emphasizes again its unsurpassed antidiarrheal effectiveness in these more common conditions:

- **Gastroenteritis**
- **Acute infections**
- **Spastic colon**
- **Drug induced diarrhea**
- **Functional hypermotility**

For correct therapeutic effect
Rx correct therapeutic dosage

Dosage: The recommended initial daily dosages, given in divided doses until diarrhea is controlled, are:

Children: Total Daily Dosage

3-6 mo. . . ½ tsp.*t.i.d. (3 mg.)
6-12 mo. . ½ tsp. q.i.d. (4 mg.)
1-2 yr. . . . ½ tsp. 5 times daily (5 mg.)
2-5 yr. . . . 1 tsp. t.i.d. (6 mg.)
5-8 yr. . . . 1 tsp. q.i.d. (8 mg.)
8-12 yr. . . 1 tsp. 5 times daily (10 mg.)
Adults: 2 tsp. 5 times daily (20 mg.) or 2 tablets q.i.d.

*Based on 4 cc. per teaspoonful.

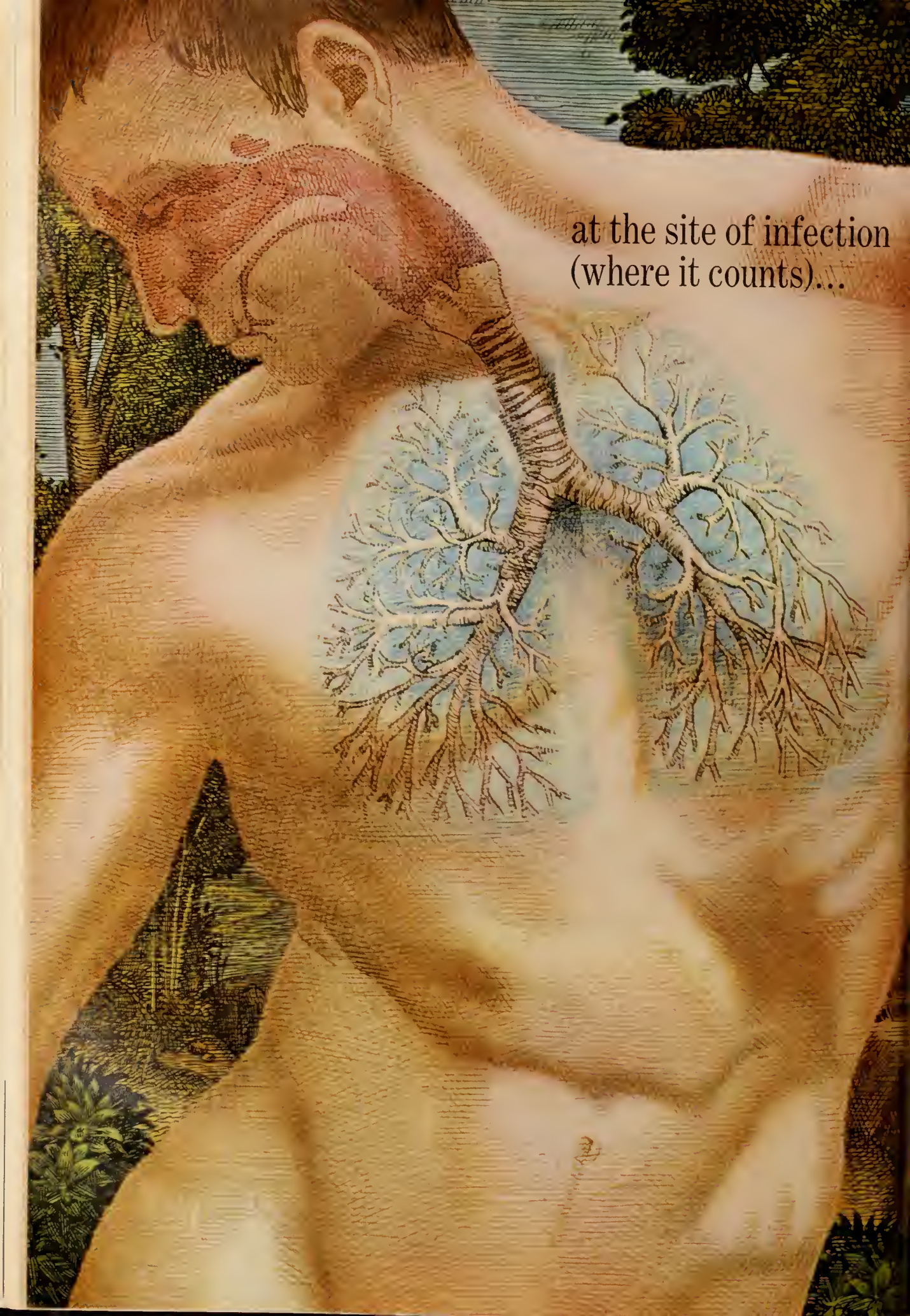
Maintenance dosage may be as low as one-fourth the initial daily dosage.

Precautions: Lomotil is a federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded, and medication should be kept out of reach of children. Should accidental overdosage occur signs may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils and tachycardia. Lomotil should be used with caution in patients with impaired liver function or those taking addicting drugs or barbiturates.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of the extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

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at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Now available:
New! Ready-mixed Ilosone Liquid 125! (Contains erythromycin estolate equivalent to 125 mg. erythromycin base per 5-cc. teaspoonful.)

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Ilosone®
Erythromycin Estolate

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(See next page for prescribing information.)

Ilosone®/the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

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Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have also been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Adverse Reactions: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have developed in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly, usually within forty-eight hours, if the drug is readministered to sensitive patients. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared be definitely related to use of the drug, laboratory findings w characterized by increased direct-reacting bilirubin, eleva alkaline phosphatase levels, negative or weakly positive cepha flocculation and thymol turbidity tests, elevated serum glutan oxalacetic transaminase levels, peripheral eosinophilia, and n mal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has been reported in other patients taking prolonged courses of medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months, a patients with rheumatic fever have taken prophylactic doses 0.5 Gm. daily for two years without difficulty. In one group 144 patients who received the drug daily for two years, no ja dice was noted. It was of interest that members of six of th patients' families, who were not taking the drug, had episo of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels w determined in a group of fifty-four adults and children who t 250 mg. of Ilosone daily for an average of sixteen months rheumatic fever prophylaxis. The results were compared w those of a similar group of forty-four patients who received p icillin. There were no cases of jaundice in either group. Elevat of SGPT and serum alkaline phosphatase levels during the cou of treatment was observed in one patient treated with Ilos and in two patients treated with penicillin. Seven other patie in the group receiving Ilosone and four others in the penicil group showed elevations in one of the tests at some time duri administration of the drugs.

Very satisfactory therapeutic results, without toxicity, w reported in 102 pediatric patients who received short-term (t day) courses of Ilosone in the treatment of streptococcus inf tions. Results of liver function tests in these patients we comparable to those in a similar control group who had receiv penicillin.

Gastro-intestinal disturbances not associated with hepatic fects are observed in a small proportion of individuals as a res of a local stimulating effect of the medication on the alimenta tract; however, the normal intestinal gram-negative bacter flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the u of erythromycin, there have been occasional reports of urtica skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®, Ilosone Liquid 125, Ilosone, 125, for O Suspension, Ilosone Drops, Ilosone Chewable Tablets.

For infants and for children under twenty-five pounds of bo weight, the usual dosage is 5 mg. per pound every six hours; children twenty-five to fifty pounds, 125 mg. every six hou (Tablets Ilosone Chewable should be chewed or crushed a swallowed with water.)

For adults and for children over fifty pounds, the usual dosa of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromy therapy should be considered.

In the treatment of syphilis, the recommended total dosage 20 to 30 Gm. given in divided doses for a period of ten to fift days. Close follow-up of the patient is necessary since eryth mycin drugs have not had adequate evaluation in all stages syphilis. Examinations of spinal fluid are recommended as p of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examinati before receiving antibiotics, and monthly serologic tests sho be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 m (equivalent to base), in bottles of 24 and 100.

Ilosone Liquid 125, Oral Suspension, U.S.P., 125 mg. (equival to base) per 5-cc. teaspoonful, in 60-cc. and pint-size packag

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equival to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size packag

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc.-s packages, with dropper calibrated at 25 and 50 mg.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to bas in bottles of 50. [0327

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2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 1
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Additional information available to physicians upon request.
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The Patient with Anemia: Diagnosis

By

Charles L. Whitfield, M. D.

Birmingham, Alabama

ANEMIA IS VERY COMMON. *Of 100 consecutive hospital admissions to an indigent medical service, 55 were found to be anemic. The following article outlines a practical approach to the diagnosis of anemia.*

Many physicians get bogged down in the details of some diseases and often miss a fairly simple aproach to a presenting symptom or sign. With this in mind, and because diagnosis is the key to treatment, I have outlined the following approach to diagnosing the anemic patient. Most of this approach is not new. However, if one observes the way diagnosis and treatment of anemias are handled by many physicians, both in training and in practice, one can readily see that the subject has not received due emphasis in either basic or continuing medical education. Also, this is not a complete work on the anemias; rather it is intended to outline an approach to diagnosing anemia in general, with some comments on important points that are not often stressed in textbooks.

The etiologic classification of anemia (as opposed to the morphologic classification presented here) should be mentioned only to say that, in my opinion, it is not as practical a classification as the latter, realizing that neither is perfect nor is their combination without fault. Besides, *only three basic etiologies exist in anemia: blood loss, hemolysis, and inadequate generation.*

Anemia is difficult to define. Translated literally, it means "no blood," and is thus a misnomer. Its more modern definition includes a reduction in the concentration of hemoglobin or hematocrit of the peripheral blood below normal for age and sex, decreased oxygen carrying capacity of the blood, and failure of erythrocyte production to keep up with demand (which may be normal). Although opinions vary, normal values most often quoted are: for adult males, hematocrit 47±7 vols%, hemoglobin 16±2 gms%; and for adult females, hematocrit 42±5 vols%, hemoglobin 14±2 gms%.[1] This sex difference is due to increased marrow stimulation and production secondary to the higher androgen secretion in males.

Probably the most important statement that can be made about anemia is that it is *always due to something. To avoid wasted time, money, and embarrassment, one should find that cause before therapy is begun.*

The First Step: History, Physical, and Peripheral Blood Smear

As with any symptom or sign, in the patient who is found to be anemic, the *history and physical examination* may establish the diagnosis. A history of diet, drug, and chemical exposure is especially important. For example, a patient taking a sulfa drug for a urinary tract infection might be found to be anemic. From just this information one can think of two possible causes of anemia: drug exposure (especially sulfa) and infection. Or, in another patient, one may discover enlarged lymph nodes on physical examination. This finding is a clue to the cause of anemia, eg, lymphoma, Hodgkin's disease, leukemia, infection, etc. *Failure of the physician to devote adequate time and effort to the history and physical examination is usually the source of the missed diagnosis.* This then results in wasted time, money, and in poor medical practice in general. Such may be illustrated by the following case:

Fifty-year-old female with progressive weakness over two months; review of systems: not taken. Pulse 100, apical systolic murmur present. Hct 21; WBC 8,000; normal

Reprinted from *THE NEW PHYSICIAN* 16:184-198 (July) 1967. The official journal of the Student American Medical Association, printed and published in the United States of America © Copyright 1967.

differential. Treated with intramuscular iron injections. Symptoms temporarily improved, but weight loss became progressively more severe. Ten months later rectal exam done, dark stool found, strongly positive for occult blood. On questioning, patient stated stool had been dark for past 12 months. Sigmoidoscopy to 25 cm, negative. Barium enema showed a large mass in the cecum. Laparotomy revealed carcinoma of the cecum, with spread to six of the resected nodes.

Errors: history and physical incomplete; cause of anemia not looked for until too late. Rectal and stool guaiac exam not performed. Therapy instituted without diagnosis.

By physical examination alone one cannot accurately determine the presence of anemia. Because the conjunctivae and palmar creases are usually not pale until the hemoglobin is 7 gms% or less or the hematocrit is about 21 vols% or less, such examinations are of no value in detecting milder anemias.[2] Nor is the patient's general pallor of much value, due to normal individual variation.

Following the history and physical, *a properly stained and interpreted peripheral blood smear* is the most helpful single diagnostic test and is the pathfinder of the anemia work-up. It should be emphasized that proceeding with more advanced studies (eg, serum iron, bone marrow, Schilling tests, etc) without first *personally* examining the peripheral smear would be similar to proceeding with more advanced studies for symptoms and signs of pulmonary disease without first personally examining the patient's chest x-ray film. One should not trust the lab report on such an important initial and basic aid. A case in which examination of the peripheral blood smear was neglected by the physician follows:

Sixty-year-old male with weakness and paresthesias for eight months. Drug exposure: oral multivitamin capsule daily. Exam: normal. Hct 23. Treated with IM multivitamin for next two years with good response. (Hct 40). Soon after developed anorexia, weight loss, jaundice, severe nausea, and vomiting, and died six months later. Autopsy showed a large gastric carcinoma with spread to liver, lungs, and multiple nodes. Error: At first visit peripheral smear showed macrocytosis, hypersegmented polys, and decreased platelets—a picture highly suggestive of pernicious anemia, which itself has a high incidence of associated gastric cancer, and should have alerted physician to do initial upper GI series, possibly repeating yearly. This anemia was "masked" by folic acid.

In examining the smear, an area should be selected where the cells are not clumped but are almost touching, and the morphology determined there.[3] Although microcytes and macrocytes may usually be seen on any blood smear, the *size and hemoglobin content* of the *majority* of the red cells are of paramount importance. Thus, in classifying the anemia morphologically, the following are possible: micro-, normo-, or macrocytic, and hypo- or normochromic. There is no use for the term "hyperchromic" (although occasionally some RBC's may appear so) because the mammalian red cell cannot become supersaturated with hemoglobin. Because it may be difficult to judge borderline *hypo*chromic red cells, comparison with a normal smear by the slide-cover slip method may be helpful.[4]

Red cell indices are usually no substitute for and are inferior to a properly stained and interpreted smear of the peripheral blood. Indeed, these indices are often only confusing and probably should not be included in the routine anemia work-up. The reasons are as follows: 1. All three indices are subject to inherent errors (as discussed below). 2. The MCV is only an *average* volume measurement of all red cells present, no matter what their varied sizes. 3. The MCHC is significantly reduced only in iron deficiency anemia.[1] 4. The MCH has no clinical significance.[5] 5. Red cell indices tend to make the physician look less at the peripheral blood smear.

One should remember that although help-

TABLE I

RED CELL MORPHOLOGICAL ABNORMALITIES, THEIR DEFINITION, POSSIBLE MECHANISMS, AND SIGNIFICANCE[1, 8, 10, 47]

Red Cell Morphological Abnormality	Definition, Possible Mechanism, and Significance
Anisocytosis	Variations in red cell size. The most common red cell morphological abnormality in the anemias. A slight degree of anisocytosis is normal.
Poikilocytosis	Variation in red cell shape. Some elliptical red cells may be seen in most of the anemias.
Polychromatophilia	A bluish appearance of the red cells with Wright's stain. For all practical purposes, same as reticulocyte.
Target cell (leptocyte, "Mexican hat" cell)	Red cell target form which may be a variation in cell membrane's being enlarged in relation to its contents. Seen in many of the anemias, especially: thalassemia, Hgb C disease, Hgb SS disease, liver disease, hemolytic disease, and after splenectomy. It is a nonspecific finding, especially when seen in small numbers.
Burr cell (acanthrocyte, "helmet cell")	Red cell with numerous spine-like surface projections. May develop from a vacuole which ruptures the periphery of the cell membrane. Often seen in uremia, occasionally in gastric cancer, bleeding peptic ulcer, hemolytic disease, aplastic anemia, and rarely seen as a genetic defect and in normals.
Half- or quarter-moon cell (achromocyte, "crescent" or "splenoid" body)	Abnormal red cell shape probably due to red cell rupture. Should not be confused with sickle cell. Seen in hemolytic anemias.
Spherocyte	Small, darkly-pigmented to bright-red erythrocyte showing no central pallor. Seen in hereditary spherocytosis, other types of hemolytic anemia, and in severe anemia.
Pencil form	Marked elongation of red cell. Often seen in moderate to severe iron deficiency anemia. May be seen in hereditary elliptocytosis.
Crenated red cell	Shrinkage of red cell in a hypertonic medium with the formation of irregular margins and a varying number of prickly points. Probably an artifact. May be produced by trauma during blood film preparation.
Normoblastemia	Nucleated red cells in peripheral blood. May be either a normal physiologic response or indicative of a bone marrow disease. Examples of the former are: severe hemolytic anemia, severe anoxia (eg, any severe anemia, with Hct usually below 15 vol%), severe congestive heart failure, and leukemoid reactions. Examples of the latter are: disseminated neoplasia or tuberculosis and megaloblastic anemia. Of course, these nucleated RBC's should not be counted as WBC's in the total white blood cell count.
Red Cell Inclusions	
Heinz-Ehrlich body	Highly refractile particle of denatured hemoglobin one to three micra in diameter, seen only with supravital (eg, cresyl violet) stain, and usually located in the red cell periphery. Probably due to oxidative damage to red cells by mechanism discussed in Table 2 and Figure 6. Seen in G-6-PD deficiency anemia ("Heinz body anemia") and occasionally in small numbers in splenectomized patients.
Howell-Jolly body	Spherical dark purple inclusion, thought to be a nuclear particle because takes nuclear stain. May be a nuclear remnant resulting from abnormal mitosis. Seen often in hemolytic diseases, sprue, leukemia, and after splenectomy.
Siderocyte	Red cell with non-heme iron particles. With Wright's stain resemble punctate basophilia but, in addition, stain with Prussian blue. Seen in anemias of impaired hemoglobin production, especially sideroachrestic type. In reticulocytes these particles are sometimes called "Pappenheimer bodies."
Basophilic stippling	Altered and precipitated RNA (endoplasmic reticulum) or abnormal globulin. It is a nonspecific abnormality which may be seen in almost any severe anemia. Seen more commonly in heavy metal intoxication, hemolytic disease, liver disease, thalassemia, and PA. Frequently better demonstrated in bone marrow smears.
Degeneration body	May appear as a red cell vacuole ("Maragliano body") or as a rod-like hyaline area ("bacillary degeneration"). May be different from actual inclusion in that degeneration body appears to vary in size with change of focus, whereas actual inclusion will simply become more or less distinct.
Plasmodium	"Signet ring" trophozoite or other form (blue cytoplasm with red nucleus). Seen in malaria.
Cabot ring	Single or double, red to purple ring, or figure-of-eight form in nucleated or normal red cells. May be cellular degeneration produced by toxins or may be artifact. Seen in severe hemolytic anemia.

(Continued on Page 294)

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Mediatric® can help them lead a more active, useful lif



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A steroid-nutritional compound (Mediatric) was used in 100 patients to relieve some of the symptoms caused by degenerative changes of aging...." This therapy resulted in improvement of 75 per cent of the patients.

McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

The estrogen component is PREMARIN® (conjugated estrogens—equine), the orally active, natural estrogen most widely prescribed for its physiologic and metabolic benefits. The combination of estrogen and *methyltestosterone* can help maintain an anabolic balance to forestall premature estrogen-related degenerative changes.

MEDIATRIC also supplies a small amount of *methamphetamine* to provide a gentle mood uplift; and nutritional supplements specially selected to meet the needs of the aging.

MEDIATRIC helps keep the older patients alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, and lack of interest so often associated with declining gonadal hormone secretion.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.

WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: **Male and female:** 1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

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No. 910 – MEDIATRIC Liquid, in bottles of 16 fluidounces and 1 gallon.

Steroid-nutritional compound	Each MEDIATRIC **TABLET or CAPSULE** contains:	Each 15 cc. (3 teaspoonfuls) of MEDIATRIC **LIQUID** contains:
Conjugated estrogens—equine (PREMARIN®)	0.25 mg.	0.25 mg.
Methyltestosterone	2.5 mg.	2.5 mg.
Methamphetamine HCl	1.0 mg.	1.0 mg.
Cyanocobalamin	2.5 mcg.	1.5 mcg.
Intrinsic factor concentrate	8.0 mg.	—
Thiamine HCl	—	5.0 mg.
Thiamine mononitrate	10.0 mg.	—
Riboflavin	5.0 mg.	—
Niacinamide	50.0 mg.	—
Pyridoxine HCl	3.0 mg.	—
Calcium pantothenate	20.0 mg.	—
Ferrous sulfate exsiccated	30.0 mg.	—
Ascorbic acid	100.0 mg.	—
		(Contains 15% alcohol)

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(Continued from Page 291)

ful, morphologic variations such as anisocytosis, poikilocytosis, polychromatophilia, basophilic stippling, and target cells are not diagnostic of any specific type of anemia but are common to *many* different anemias (*Tables 1* and *3*). Normoblastemia, the finding of *nucleated red cells* in the peripheral smear, usually means increased marrow red cell production—due to either a normal physiologic response or a bone marrow disease[4] (*Table 1*).

Obviously, *white cell* count, differential, and morphology should be noted. One may look for multi-segmentation of the nuclei of neutrophils, "toxic granulation," nuclear degeneration, vacuolization, and degeneration of the cytoplasm. Normal *platelets* appear granular and are about two to five micra in diameter. (Platelet size may be estimated by comparison with normal sized red cells, which are usually seven micra in diameter.) In disease the size may vary from a fraction of a micron to seven micra. Platelet numerical adequacy should also be estimated; some authorities say one platelet per oil immersion field is adequate, and others say from three to five are adequate as a gross screening test.

Special mention should be made of the micro-*hematocrit* or packed cell volume. It is the single most useful test in establishing whether a patient is anemic and is much more accurate (±0.5%) than either the hemoglobin determination (±2-3%) or the red cell count (±10% error) using the most precise methods. Also, the hematocrit gives much more information than the single value its name suggests: the serum color (hyperbilirubinemia, hemoglobinemia, etc) and turbidity should be noted, and because each 0.1 millimeter of the buffy coat is equivalent to a white blood cell count of approximately 1,000 (in the *Wintrobe hematocrit tube*), a gross estimate of the white count is directly available.[6, 7]

Reticulocyte Count

The *reticulocyte count* has been called ". . . the most neglected hematologic laboratory determination."[6] After the peripheral smear (which is almost as neglected by the physician), the reticulocyte count is the next most helpful diagnostic aid. Its increase or decrease immediately focuses on a particular group of anemias. It may be thought of as a "marrow function test" and, when corrected for the severity of the anemia, actually reflects effective increased marrow activity better than does marrow morphology.[8] If *increased* (marrow producing red cells at greater than normal rates), then red cells are being or have recently been rapidly lost or destroyed at a greater than normal rate. The cause of this red cell loss or destruction, if not already obvious from the history and physical exam, may be further searched for by testing the *stool* for *gross and occult blood.* Of course, other tests, both routine and special, may reveal evidence of bleeding elsewhere. Examples would be gross or microscopic hematuria, hematemesis, hemoptysis, or evidence of hematoma, either retroperitoneal or elsewhere. A hemolytic process may also be present; and, though rarely seen, myelofibrosis with extramedullary hematopoiesis may cause an increased reticulocyte count. In the healthy patient who has experienced acute blood loss or uncomplicated hemolysis, the reticulocyte count is proportional to the percentage of the body's total blood that has been lost or destroyed, up to about 7%.[9] For example, if red cell destruction were five times normal (which is about 1%), then the reticulocyte count would be 5%.

If the reticulocyte count is *decreased* (marrow producing red cells at less than normal rates), then other anemias are possible, usually those due to iron deficiency or to bone marrow depression of one cause or another. A *normal* reticulocyte count in the presence of anemia means that the marrow is depressed somehow, and actually should be thought of as a *decreased* reticulocyte count. One should remember that anemia caused by increased destruction or rapid loss of red cells may have a decreased reticulocyte count if it is due to either deficiency of red cell pro-

TABLE 2

SEVERAL ANEMIAS AND THEIR ESTABLISHED OR PROPOSED PATHOPHYSIOLOGY

Anemia Associated With	Pathophysiology Involved
Liver disease	One or more of the following factors may be involved: 1. increased plasma volume and hypervolemia (over 50% of patients) 2. blood loss (50%), with or without clotting factor deficiency 3. EMF deficiency 4. associated (a) cancer (b) steatorrhea (c) hemolysis (75%)—2° to either Zieve's syndrome[48] or hypersplenism 5. acute alcoholism[14] 6. non-liver-associated anemia
Infection	Defect in the release of iron from the tissues to transferrin. On occasion, hemolytic anemia may be associated due to: 1. cold agglutinins or cold hemolysins 2. cellular damage from the organism or its toxins 3. "hypersplenism"
Rheumatoid arthritis	Marrow failure secondary to decreased erythropoietin levels and decreased tissue iron release. Shortened RBC survival is present.
Renal disease	Lack of erythropoietin (although in anephric man, chronically dialyzed, the same hematocrit range is maintained). Other factors, such as hemolysis and defective iron utilization contribute. Anemia often occurs when BUN exceeds 30, though it has been stated that there is no direct correlation beween the degree of anemia and azotemia.[49, 50]
Malignancy	Major defect is decreased RBC production by marrow. However, blood loss, hemolysis, vitamin B_{12}, or folic acid abnormality, and myelophthistic or myelopathic changes may contribute.
Hypothyroidism	Low total body oxygen requirement. Often superimposed vitamin B_{12} or iron deficiency occurs.
Hypopituitarism	Probably decreased total body metabolic demands due to deficiency of target gland secretion.
Sideroachrestic anemias	Defect may be in heme biosynthesis; large amounts of nonhemoglobin iron in RBC precursors and younger RBC's. May be a genetic defect most often transmitted through females to males.
Ionizing irradiation	Probably due to intracellularly-formed peroxides that inhibit nuclear DNA biosynthesis, consequently preventing cell replication and reproduction.
The sign pancytopenia	Often obscure, but has been attributed to: 1. cytotoxicity 2. antibodies attacking precursor cells 3. deficiency of an unidentified factor (at one time iron, B_{12}, folate, and B_6 deficiency anemias were thought to be refractory anemias of marrow failure).
Sickle cell disease	An inherited alteration of the DNA genetic material in which valine replaces glutamic acid in the beta chain peptide of the globin molecule in heme. In the presence of low oxygen states individual hemoglobin molecules then link together to form long chains which align to form birefringent tactoids and thus sickled erythrocytes.
Hereditary spherocytosis	Generally thought to be inherited as a single Mendelian dominant gene, though many exceptions occur. Alteration of red cell glucose metabolism, ATP production. Because of the shape and possible metabolic alterations, the spleen then removes the spherocyte from circulation.
G-6-PD deficiency and other hereditary nonspherocytic anemias	Inherited as a sex-linked, incompletely dominant gene of intermediate penetrance which causes, among other things, a deficiency of the red cell enzyme G-6-P Dehydrogenase to about 10% of normal. Under the stress of certain oxidative drug exposure (see list in text), the sensitive red cell cannot rapidly generate TPNH and GSH necessary to prevent oxidative cell destruction (Figure 7).[51]
PNH	At a pH slightly lower than physiologic, red cell lysis occurs, involving the interaction between an unknown intracellular defect and several factors present in normal serum (magnesium, "properdin," and "complement-like" components).
Lead poisoning	1. Inadequate erythropoiesis by inhibition of: (a) delta-aminolevulenic acid (ALA) formation from glycine and succinate, (b) porphobilinogen formation from ALA, and (c) incorporation of iron into protoporphyrin (see Figure 7). 2. Hemolysis, probably a direct result of the action of lead on the red cell.
Autoimmune hemolytic disease	Abnormal proteins, antibodies or otherwise, are produced in response to known or unknown stimuli (eg, infections, chemicals, neoplasms, etc). (See explanation under autoimmune hemolytic disease in text.)
Iron deficiency	Lack of iron for production of heme (see Figure 7). Other factors may be present.
Pernicious anemia	Ineffective erythropoiesis secondary to a genetically determined defect in intrinsic factor which prevents vitamin B_{12} absorption, mostly by the terminal ileum. Circulating autoantibodies (7S globulins) to both intrinsic factor and to the cytoplasm of the gastric parietal cell have been demonstrated in adult patients with pernicious anemia. The former disappears temporarily on corticosteroid therapy. In studies of close relatives, there appears to be a familial predisposition to both gastric and thyroid autoantibody formation. Juvenile PA (age onset six months to 16 years) is thought to be a different disease because gastric acid secretion is present and antibody formation is absent. A second type of juvenile PA (age onset 10 to 18 years) may be associated with endocrinopathy, and achlorhydria and antibody formation to intrinsic factor and parietal cells are present.[52] Hemolysis (both intravascular and intramedullary) is present in PA.
The Thalassemia Syndromes	Generally thought inherited as a dominant gene with varying penetrance. May be the result of an abnormality of the rate of synthesis of globin chains rather than abnormality of hemoglobin structure.[53] Other associated pathophysiology: 1. dyshematopoiesis (abnormal decrease in hemoglobin to the peripheral blood by the bone marrow). 2. hemolysis (both intramedullary ["ineffective erythropoiesis"] and intravascular).[61] 3. relatively slow rate of protoporphyrin production and 4. a partial block in the combination of protoporphyrin and iron (see Figure 7).

duction materials (iron, vitamins, etc) or marrow depression from certain disease processes, eg, infection or inflammation (see next paragraph).

Normocytic Normochromic Anemia

Normocytic normochromic anemia with decreased reticulocyte count (*Figure 1*) is probably the most common type of anemia in the United States today (there are others who would believe that iron deficiency anemia is the most common) and is usually secondary to *chronic disease.*[10] Pathophysiologic mechanisms associated with this type of anemia have been found in part to be: shortened red cell survival time, impaired release of iron stores to transferrin, and failure of the marrow to increase production (*Figure 1*).[11] These chronic diseases are often: infections; collagen diseases, including rheumatoid arthritis; chronic liver disease; hypo: -thyroidism, -adrenalcorticalism, -pituitarism; uremia, lead poisoning; leukemia; and occasionally blood loss or hemolytic anemia if there is a deficiency in RBC building materials (especially early iron deficiency anemia). The *pathophysiology* of these and following anemias are outlined in *Table 2.*

One should remember that the morphologic classifications listed in this article are not absolute; eg, the anemia of lead poisoning is *most often* normocytic normochromic, but *may* appear as microcytic hypochromic anemia. *Table 3* lists some of these variations from the usual, and they are also mentioned in the second paragraph under microcytic hypochromic anemia below.

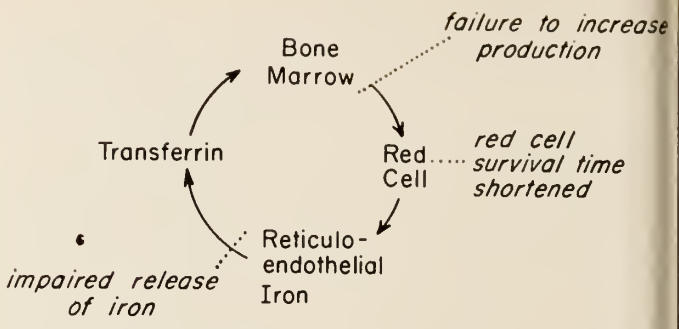


Figure 1—A concept of the pathogenesis of the anemia of chronic disease (modified from Cartwright[11]).

Pancytopenia, (decrease in red cells, white blood cells, and platelets, due to marrow destruction or severe suppression) usually shows a normocytic normochromic anemia with decreased reticulocyte count. The bone marrow may be hypo-, normo-, or hyperplastic. Among the possible etiologies are drugs (50% of pancytopenias, most commonly: benzol and related compounds, nitrogen mustard, organic arsenicals,[11] chloramphenicol

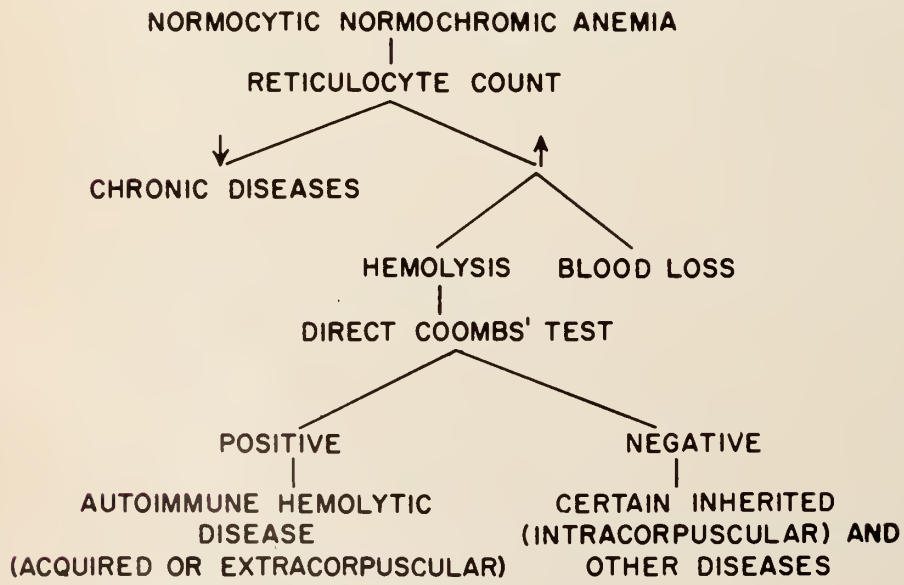


Figure 2—An outline for helping diagnose normocytic, normochromic anemia.

(Continued on Page 303)

A Building Block approach to treating hypertension

With these three therapeutic building blocks you can create a once-a-day regimen to fit almost any degree of hypertension. See the following pages for details . . .



Consider starting your hypertensives on this basic thiazide

ABBOTT

A single daily dose of Enduron provides sodium excretion around the clock

Enduron is a true 24-hour single-dose thiazide. Its sodium excretion is not squeezed into an abrupt peak during the first several hours. It is well-sustained in a plateau-like effect—with little reduction for the first 12 hours, and decline thereafter only gradual.

Potassium loss, by contrast, is low. It reaches an early minor peak, then subsides rapidly. Moreover, since dosage is but once a day, there is but one daily peak of potassium loss. As with all thiazides, however, dietary potassium supplementation should also be considered, especially in long or intensive therapy.

Use Enduron as an ideal starting therapy in mild hypertension. Use it too, as a basic therapeutic building block with which other agents can be joined, for managing your more resistant hypertensives.

Once a day, every day

ENDURON®
METHYCLOTHIAZIDE



DAILY DOSAGE RANGE	Minimum	Usual	Intermediate	Maximum
	2.5 mg. tablet	5 mg. tablet	7.5 mg.	10 mg.

See Brief Summary on final page of advertisement.

To build added response, shift to Enduronyl

The deserpidine component adds enhanced antihypertensive activity

The rauwolfia component of Enduronyl is deserpidine (Harmonyl®), a purified crystalline alkaloid supplied only by Abbott. It augments Enduron with its own antihypertensive and tranquilizing action.

Thus the combined clinical effect of these two therapeutic building blocks in Enduronyl is greater than can ordinarily be achieved with either alone.

To add flexibility, Enduronyl comes in two strengths: regular and Forte. Both provide 5 mg. of Enduron. The variation is where most helpful: in the deserpidine. The tablets are scored, and give a surprisingly wide and economical choice of once-a-day doses (see below).

Choose Enduronyl for your patients in the broad range of mild to moderate hypertension. Patient acceptance is excellent!



Once a day, every day

ENDURONYL®

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.25 MG.

ENDURONYL FORTE

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.5 MG.

	Minimum	Usual	Intermediate	Maximum
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.125 mg. deserpidine	5 mg. methyclothiazide 0.25 mg. deserpidine	7.5 mg. methyclothiazide 0.375 mg. deserpidine	10 mg. methyclothiazide 0.5 mg. deserpidine
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.25 mg. deserpidine	5 mg. methyclothiazide 0.5 mg. deserpidine	7.5 mg. methyclothiazide 0.75 mg. deserpidine	10 mg. methyclothiazide 1 mg. deserpidine

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707075-R

Eutonyl affords a different kind of basic therapy for moderate to severe cases

ABBOTT

Effect tied to reduced peripheral vascular resistance; no central depressant action

Eutonyl is a unique nonhydrazine agent. It is reported to act by reducing peripheral vascular resistance.[1,2]

In clinical trials, significant reductions in mean blood pressure were seen in 84% of patients studied—all were moderate to severe cases. Eutonyl lowers diastolic in proportion to systolic, and in about half of the cases studied, reductions in the sitting and recumbent positions were nearly as great as in the standing position.

Most important: There is no central depressant action. In fact, some patients reported an *increased* sense of well being.

Here, then, is a highly effective *basic treatment* for moderate to severe cases—and one that will not hamper your patient with lethargy or drowsiness while on treatment.



Once a day, every day

EUTONYL®
PARGYLINE HYDROCHLORIDE

DAILY DOSAGE RANGE	Minimum	Usual starting	Intermediate	Maximum
	10 mg. tablet	25 mg. tablet	50 mg. tablet or as needed	200 mg.

1. Brest, A. N., et al., Cardiac and Renal Hemodynamic Response to Pargyline, Ann. N. Y. Acad. Sci., 107-1016, 1963.
2. Winsor, T., Pargyline Hydrochloride, Hypertension, Urinary Tryptamine, and Vascular Reflexes, Geriatrics, 19:598, Aug., 1964.

See Brief Summary on final page of advertisement.

Eutron adds thiazide for enhanced therapy with milder side effects

ABBOTT

Only a 7/4 mm. span between standing and recumbent pressures in clinical trials—reduced chance of orthostatic hypotension

The combining of Eutonyl and Enduron in Eutron permits a significantly greater antihypertensive effect than with either agent used alone. This in turn may allow therapeutic success with lesser dosage—and correspondingly milder side effects.

A significant finding in clinical trials was the drug's action in lowering blood pressure to *nearly equal levels in all body positions*. Total average spread between standing and recumbent readings (after treatment) was only 7/4 mm. Hg.

Thus, in your moderate to severe cases, Eutron affords a usually smooth course of therapy, often with reduced likelihood of orthostatic effects. (The usual precautions against rising suddenly, of course, will always apply.) And, because of the thiazide component, Eutron may be used in the presence of congestive heart failure.



Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 MG.
WITH METHYCLOTHIAZIDE 5 MG.

	Minimum	Usual starting	Intermediate	Maximum
DAILY DOSAGE RANGE	12.5 mg. pargyline hydrochloride and 2.5 mg. methyclothiazide	25 mg. pargyline hydrochloride and 5 mg. methyclothiazide	37.5 mg. pargyline hydrochloride and 7.5 mg. methyclothiazide	50 mg. pargyline hydrochloride and 10 mg. methyclothiazide

See Brief Summary on final page of advertisement.

TM—Trademark

707075-R

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains
Methyclothiazide 5 mg. with
Deserpidine 0.25 mg. or 0.5 mg.

Indications: Enduron is used to control edema and mild to moderate hypertension; also used with other drugs for hypertension. Enduronyl is used in mild to moderately severe hypertension; when used with Enduronyl, more potent agents can be given at reduced dosage to minimize undesirable side effects.

Contraindications: Neither Enduron nor Enduronyl should be used in severe renal disease (except nephrosis) or shutdown; in severe hepatic disease or impending hepatic coma; in patients sensitive to thiazides. Hepatic coma has been reported as a result of hypokalemia in patients receiving thiazides.

Enduronyl is contraindicated in patients with severe mental depression and suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity reactions in patients with a history of allergy or asthma. If added potassium intake is indicated, dietary supplementation is recommended. Enteric-coated potassium tablets should be reserved for cautious use only when adequate dietary supplementation is not practical because those tablets may induce serious or fatal small bowel lesions consisting of stenosis with or without ulceration. These small bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs.

Precautions: Use thiazides with caution in severe renal dysfunction, impaired hepatic function, or progressive liver disease. In surgical patients, thiazides may reduce the response to vasopressors and increase the response to tubocurarine. Use thiazides with caution in pregnancy (bone marrow depression, thrombocytopenia, or altered carbohydrate metabolism have been reported in certain newborn infants). Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. Antihypertensive response may be enhanced following sympathectomy.

Use Enduronyl with caution in patients with a history of peptic ulcer, as rauwolfias may increase gastric secretion. Discontinue at the first sign of mental depression. Rauwolfia alkaloids may increase hypotensive effects of surgery or anesthesia, and should be discontinued two weeks prior. They also lower the convulsive threshold and shorten seizure latency. In epilepsy, dosage adjustment of anticonvulsant medication may be necessary. Alcohol, barbiturates, or narcotics may potentiate action of deserpidine.

Adverse Reactions: During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). All patients should be observed for signs of hyponatremia ("low-salt" syndrome). Reported thiazide reactions include: anorexia, nausea, vomiting, diarrhea, headache, skin rash, dizziness, paresthesia, weakness, photosensitivity, jaundice, and pancreatitis.

Reported rauwolfia reactions include: nasal stuffiness, nausea, weight gain, diarrhea, aggravation of peptic ulcer, epistaxis, skin eruption, and reduction of libido and potency. Excessive drowsiness, fatigue, weakness, and nightmares may signal early signs of mental depression.

EUTONYL® | EUTRON™

PARGYLINE HYDROCHLORIDE

Each tablet contains
Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amenable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-Trademark.

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅕ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

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(Continued from Page 296)

col,[12] sulfonamides, phenothiazines, insecticides, hydantoins, pyrazolones, barbiturates, aspirin, acetophenetidin, phenylbutazone, digitalis, and tetracycline plus penicillin);[13] "myelophthisic" anemia; leukemia or lymphoma; paroxysmal nocturnal hemoglobinuria (PNH); sarcoidosis; systemic lupus; "acquired refractory anemia"; acute alcoholism;[14] deficiency anemias, including EMF deficiency (erythrocyte maturation factor—Vitamin B_{12}, folic acid, and perhaps others; EMF deficiency is usually *macro*cytic); splenic disease; acute and chronic infections; and rarely, tuberculosis.

Hemolytic anemia should be suspected when there is a *persistent reticulocytosis with no evidence of blood loss,* particularly if splenomegaly is present. It should also be thought of in any of the following: oliguria and edema; profound prostration and shock; back, abdominal, or limb pain; chills; headaches; malaise; jaundice; symptoms of vascular spasm and/or occlusion; red plasma (hemoglobinemia) or red urine (hemoglobinuria) (both usually suggestive of acute hemolysis); leukemoid reaction; and suggestive x-ray bone changes. In addition there may be an increased serum bilirubin, decreased serum haptoglobin (rule out liver disease here), schistocytosis (red cell fragmentation), and other red cell morphological suggestions of a hemolytic process (including irreversibly sickled cells, target forms, erythrophagocytosis (especially in *acute* hemolysis), cells containing Heinz bodies, Howell-Jolly bodies, Cabot rings, irregularly contracted cells, stippled cells, and spherocytes). As mentioned above, in hemolytic anemia, the reticulocyte count may be decreased uncommonly. The chromium 51-tagged red cell study for survival and sequestration is sometimes helpful since, in persistent hemolytic anemia red cell half-life is significantly decreased (normal being 28 to 40 days),[15] and splenic and/or hepatic sequestration may occur; however, this procedure is not commonly needed clinically.

Because knowledge of the presence or absence of abnormal protein coating a patient's red cells is so helpful in diagnosing a hemolytic anemia, a *direct Coombs' test* should be done. A more explicit name for the direct Coombs' test is the direct antiglobulin test.[16] A positive test consists of clumping of washed red cells suspended in Coombs' serum (which is obtained from rabbits that have been injected with human immunoglobulins). Caution must be used in the interpretation of the Coombs' test whether it is done by the macroscopic or microscopic method, but by using the *macroscopic* method, the division in *Figure 2* can be made, usually narrowing the differential diagnosis by about 50%. (Additional pertinent information concerning the direct Coombs' test is included four paragraphs below.) Thus by using the *history, physical exam, peripheral smear, reticulocyte count,* and *direct Coombs' test,* one may determine the more specific tests to rule in or out those hemolytic diseases suspected (see next six paragraphs).

The most common causes of a *Coombs' negative* (implying the *absence* of abnormal proteins coating the patient's red cells) hemolytic anemia are those due to *inherited, intracorpuscular defects:* hemoglobinopathies, the most common of which is sickle cell disease; hereditary spherocytosis; and the hereditary nonspherocytic hemolytic anemias, the prototype for which is G-6-PD deficiency (*Figure 3* and *Table 2*). Other less common types are probably acquired: paroxysmal nocturnal hemoglobinuria (PNH; defect may be partly *intra*cellular); uncommonly, transfusion reactions; bacteremias; lead poisoning; hemolyticuremic syndrome;[17] carcinoma-associated; associated with intracardiac prosthesis,[18] atrial myxoma, large thrombi, and multivalvular rheumatic heart disease; and heat stroke.

The majority of *Coombs'* (antiglobulin) *positive* hemolytic anemias may be classified as *autoimmune hemolytic disease* (AHD; synonyms: immunohemolytic anemia, antiglobulin positive hemolytic anemia, acquired hemolytic disease, etc) because they are as-

TABLE 3

SEVERAL CAUSES OF ANEMIA, WITH PERTINENT SIMILAR AND DIFFERENTIAL POINTS

Type Anemia	RBC Morphology	Inclusions	WBC	Marrow	Platelets	Essential Diagnostic Points
Various chronic disorders	Normocytic	Usually none.		Hypo-, normo-, or hypercellular.		History and findings of disease process usually present.
Liver disease	May see all three types; commonly macrocytic, and cells are "thin macrocytes"; may see target cells.[46, 47]	Stippling common.	Variable.	Hypercellular "macro-normoblastic proliferation"; may be megaloblastic or most often normoblastic.	May be decreased.	May be difficult to prove a single etiology. See Table 2.
Infection	Usually normocytic, may see microcytic hypochromia		Increased; often normal, occasionally decreased.	Decreased RBC precursors; some increased. Proportion of immature cells and poor Hgb. Production in normoblasts.	Usually normal.	Presence of infection. Rule out other causes.
Rheumatoid arthritis	Normocytic, normochromic, occasionally micro, hypo; here look for blood loss, etc.		Usually normal or slightly increased.		Usually normal.	Presence of rheumatoid arthritis. Rule out blood loss, other causes of anemia.
Lead poisoning (plumbism) Uremia	Usually normocytic, may be macro, micro, hypo.	Stippling in lead poisoning, occasionally seen in uremia and other chronic diseases.	May see normoblasts in smear in lead poisoning if enough hemolysis present.	Depressed RBC activity with poor hemoglobin production in the normoblasts.	Usually normal.	Abnormal urine lead level with or without Versenate load. Azotemia plus characteristic signs and symptoms for uremia. Rule out other causes.
Malignancy	Usually normocytic. Other morphology as complications occur.		Occasionally decreased or leukemoid reaction.	Invading cell type, or may get "dry tap" or nonspecific findings.	Occasionally decreased.	Tissue diagnosis of malignancy.
Hemolytic anemia in general	Normo- or macrocytic; may see aniso-, spherocytosis, polychromatophilia.	Howell-Jolly bodies.	Increased, with occasional left shift; may show slight neutropenia.	Normal or hyperplastic; increased normoblasts, decreased M/E ratio.	Occasionally decreased.	See discussion in text plus individual types hemolytic anemia below.
Sickle cell disease (meniscocytosis, drepanocytic anemia, homozygous Hgb S disease)	Normo- or macrocytic.		Increased, with myeloid left shift.	Normoblastic hyperplasia with hemosiderosis.	Occasionally increased.	Sickle prep, Hgb electrophoresis. May need at two pH levels to rule out D Hgb. May simulate rheumatic fever or rheumatic heart disease.
Hereditary spherocytosis (Congenital hemolytic icterus, acholuric jaundice, congenital hemolytic anemia, familial spherocytosis, spherocytic anemia.)	Normocytic; may see microcytosis. Spherocytosis.		Normal unless crisis, when count may be very high.	Normoblastic, erythrocytic hyperplasia.	Usually normal.	Family history, hepatosplenomegaly, reticulocytosis, early RBC forms, and positive osmotic fragility. Rule out eliptocytosis, etc.

TABLE 3—(Continued)

Type Anemia	RBC Morphology	Inclusions	WBC	Marrow	Platelets	Essential Diagnostic Points
G-6-PD deficiency	Occasional spherocytes, often "half moon" cells.	Heinz bodies.				G-6-PD test (may be negative during acute disease process). Seen in 10% American Negroes (majority males) and some Mediterraneans.
Acute blood loss	Normocytic at first, then usually macrocytic in a few days (due to reticulocytosis).		Increased, with left shift.	Usually normal; may be hyperplastic.	Often increased early.	Hematocrit usually not helpful immediately after the acute bleed.
Iron deficiency (milk anemia, etc. Was previously "idiopathic hypochromic anemia").	Microcytic, hypochromic, often with pencil forms.		Normal or slightly decreased.	Hypo- or hyperplastic with increased normoblasts and decreased stainable iron.	May be increased slightly.	History, smear, decreased reticulocytes, clinical response to iron treatment.
Thalassemia major (Cooley's anemia, Mediterranean anemia, hereditary leptocytosis, erythroblastic anemia).	Microcytic hypochromic, extreme anisocytosis, and poikilocytosis; target cells.	May be seen in nucleated red cells and reticulocytes[53]	19-25,000, with left shift.	Hyperplastic many stem cells and nucleated RBC's.	Normal.	Mongoloid facies, splenomegaly, severe anemia; thin, anisocytic pale red cells, no sickling; increased resistance to hypotonic saline; hemoglobin electrophoresis (including alkali-resistant Hgb measurement). Plasma and/or marrow iron studies of patient, parents, and sibs often helpful.
Pernicious anemia (Addison's anemia, Biermer's anemia, primary anemia).	Macrocytic, unless other types anemia present. Oval macrocytes with poikilocytic microcytes, plus WBC and platelet changes are highly suggestive (of megaloblastic anemia, of which PA is by far the most common).	Howell-Jolly bodies, Cabot rings.	Often hypersegmented, macropolycytes.	Megaloblastic (Figure 5)	May be decreased.	Characteristic peripheral smear, bone marrow, and response to minimal doses of B_{12}; or Schilling tests and response to B_{12}.
Aplastic anemia (Primary refractory anemia).	Normocytic, occasionally macrocytic		Decreased.	Fat replaces marrow; usually need marrow biopsy.	Decreased.	Anemia usually with granulocytopenia and thrombocytopenia, refractory to any treatment other than blood transfusions, and not associated with other causes of chronic anemia as infection, uremia, cancer, etc; with severely hypo- or aplastic marrow. This diagnosis is made possible largely by exclusion.
Chronic congestive splenomegaly (Banti's syndrome, "hypersplenism").	Normocytic		Often decreased.	Normal or slight myeloid hyperplasia.	Often decreased.	Anemia, splenomegaly, and characteristic marrow. The cause of this syndrome should be determined.
Hypersideremic anemias (A complex group) [Subheadings follow]		Siderocytes or blasts with Prussian blue stain.		Normoblastic maturation; ringed siderblasts on iron stain; often hyperplastic.		Increased serum Fe; marrow siderocytes, no response to iron.

(Continued on Page 308)

when bursitis hits a 280-lb. tackle, hit back with Butazolidin alka



Indications: Osteoarthritis, rheumatoid arthritis, rheumatoid spondylitis, psoriatic arthritis, acute gout, painful shoulder (peritendinitis, capsulitis, bursitis and acute arthritis of that joint), acute superficial thrombophlebitis.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently. Large doses of Butazolidin alka are contraindicated in glaucoma.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Instances of severe bleeding have occurred. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Before prescribing, carefully select patients, avoidi those responsive to routine measures as well as contraindicated p tients. Obtain a detailed history and a complete physical and laborato examination, including a blood count. The patient should not exce recommended dosage, should be closely supervised and should warned to discontinue the drug and report immediately if fever, so throat, or mouth lesions (symptoms of blood dyscrasia); sudden weig gain (water retention); skin reactions; black or tarry stools or oth evidence of intestinal hemorrhage occur. Make regular blood count Discontinue the drug immediately and institute countermeasures if t white count changes significantly, granulocytes decrease, or immatu forms appear. Use greater care in the elderly and in hypertensive

Adverse Reactions: The most common are nausea, edema and dr rash. Swelling of the ankles or face may be minimized by withholdi dietary salt, reduction in dosage or use of diuretics. In elderly patien and in those with hypertension the drug should be discontinued wi the appearance of edema. The drug has been associated with peptic

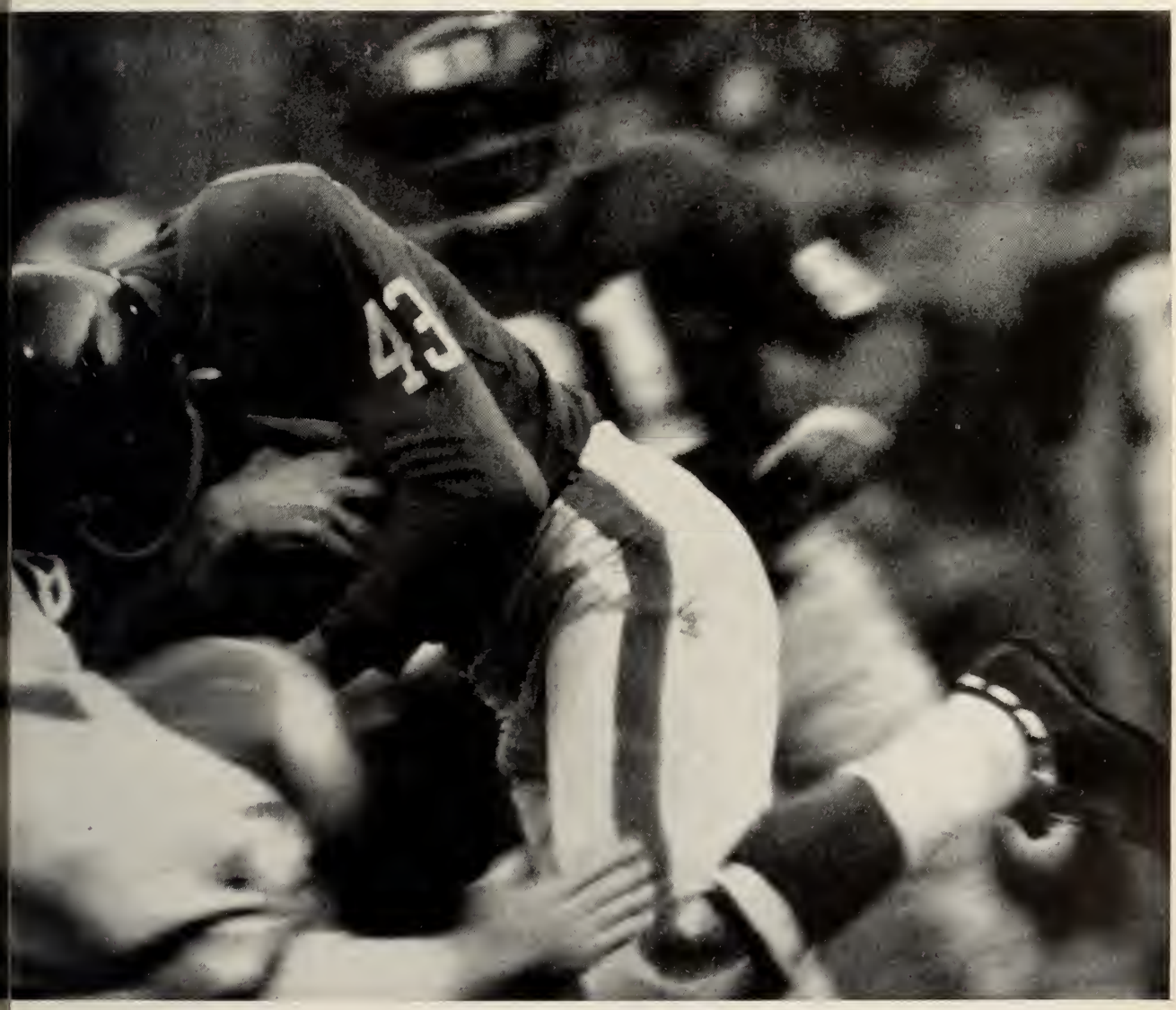
280-lb. tackles—or 108-lb. housewives—Butazolidin alka can hasten recovery from the nizing pain of shoulder bursitis.

not for every patient. Check carefully the Contraindications, Warning and cautions shown below.

l adverse reactions may occur. The most common are nausea, edema and rash. ely, agranulocytosis has been reported. All adverse reactions are listed below, too.

-for-pay or workaday patients—when they come up with shoulder bursitis and your ical judgment indicates Butazolidin alka—go with it.

l watch the comeback.



d may reactivate a latent peptic ulcer. The patient should be in-ed to take doses immediately before or after meals or with o minimize gastric upset. Mild drug rashes frequently subside eduction of dosage. However, rash accompanied by fever or systemic reactions usually requires withholding medication. ric rash has also been reported. Agranulocytosis, exfoliative titis, Stevens-Johnson syndrome, or a generalized allergic re-similar to serum sickness may occur and require permanent awal of medication. Stomatitis, salivary gland enlargement, ng, vertigo and languor may occur. Leukemia and leukemoid ons have been reported. While not definitely attributable to the a causal relationship cannot be excluded. Thrombocytopenic ra and aplastic anemia may occur. Confusional states, agitation, che, blurred vision, optic neuritis and transient hearing loss have reported, as have hyperglycemia, hepatitis, jaundice, and several of anuria and hematuria. With long-term use, reversible thyroid blasia may occur infrequently. Moderate lowering of the red cell due to hemodilution may occur. 6509-V(B)R2

Butazolidin® alka

Capsules

100 mg. phenylbutazone
100 mg. dried aluminum hydroxide gel
150 mg. magnesium trisilicate
1.25 mg. homatropine methylbromide

Dosage in painful shoulder: Initial: 3 to 6 capsules daily in 3 or 4 equal doses. Trial period: 1 week. Maintenance dosage should not exceed 4 capsules daily; response is often achieved with 1 or 2 capsules daily.

For complete details, please see full prescribing information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation, Ardsley, New York

(Continued from Page 305)

1. Pyridoxine responsive anemias.[39]	Hypochromic, microcytic. May see normo- or macrocytes and target cells.		2,000 to 38,000 with normal differential.	May be megaloblastic.	Usually normal.	Response to pyridoxine partial to complete, though morphology remains abnormal. TIBC 80—100% saturation.
2. Sidero-achrestic (hereditary iron-loading anemia, congenital sideroa-chrestic anemia).	Hypochromic, mildly microcytic; anemia often severe.		Usually normal. May be decreased.		May be decreased.	1/3 said to respond to pyridoxine, but these may actually be in above grouping. Achrestic means unable to utilize.
3. Megal-ablastic anemias & chronic hemolytic anemias.	See individual anemias above.					

sociated with an acquired antibody, most commonly a 7-S gamma globulin, which coats the patient's red cells. Either alone or when combined with complement, these coated red cells may agglutinate, hemolyze, change shape (eg, to spherocytes, with subsequent trapping and destruction in the spleen), and/or change metabolically. The most frequent type of AHD is *idiopathic*. Indeed, on first discovery of AHD, 50% or more are idiopathic;[19] in children, this type is often associated with a viral infection. One should remember that the name "idiopathic" ("essential" or "primary") means etiological ignorance. There is increasing evidence that AHD almost always reflects an associated disease, even though that disease may remain undiagnosed for months or years.[5] *Secondary* AHD (ie, nonidiopathic or secondary to diagnosable underlying disease) is most commonly due to neoplastic hematopoietic disorders, particularly the lymphomas and chronic lymphocytic leukemia; and the collagen diseases, especially systemic lupus. A group of miscellaneous conditions, usually associated with some type of abnormal protein production, comprises the remainder of the causes of secondary AHD; included are chronic liver disease, ulcerative colitis, various carcinomas, ovarian cysts, multiple myeloma, thrombotic thrombocytopenic purpura, sarcoidosis,[19] infectious mononucleosis, Eaton agent pneumonia, massive doses of penicillin,[20] and septicemias (including malaria, cholera, tuberculosis, bartonellosis, oroya fever, bacterial endocarditis, clostridium Welchii, and strep, staph, pneumococcal, and H. influenza bacteremias).[10]

In well over 75% of *secondary* AHD, the cause is usually evident at the time the hemolytic process is recognized. *Idiopathic* AHD is seen very often in post-menopausal women, many of whom are Caucasian. Splenomegaly found in this disease is most often slight to moderate, and massive splenomegaly should suggest lymphocytic disease.[21]

As one may have noted from the above paragraphs, the autoimmune hemolytic anemias are among the most difficult subjects to understand in hematology. In his monograph, *The Red Cell*, Harris states, ". . . the serology of the acquired hemolytic anemias has an awesome complexity. For almost every patient studied one or more factors may be demonstrated to differ in subtle ways from those described in other clinically comparable patients, until it would seem that no common abnormality, no pattern, no consistent set of findings is discernible."[22] However, in the majority of patients with AHD the distinction between the two most common autoantibodies is helpful in diagnosis, treatment, and prognosis. These two anti-

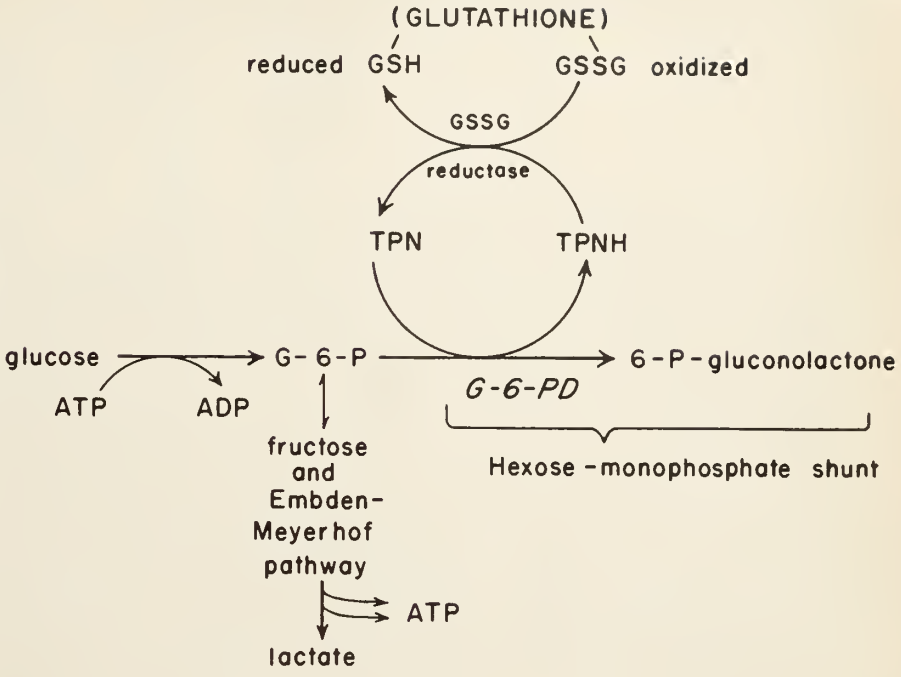


Figure 3—Glucose utilization in human red cells.

Glutathione and certain lipids are thought to play a role in red cell membrane stability. Normally glutathione is maintained in a reduced state (GSH) by the enzyme glutathione reductase (which is itself dependent on TPNH, which in turn is dependent on G-6-PD). When exposed to certain oxidative drugs (see list in text), the G-6-PD deficient patient's red cells apparently cannot maintain their membranes and thus most of the older, more enzyme deficient red cells will hemolyze.[51, 54]

body types—so-called "warm" and "cold" because of their physical reaction properties—are listed in *Table 4*.

Several important points regarding autoimmune hemolytic disease should be emphasized:

1. When studying red cell autoantibodies, distinguish them from isoantibodies (usually multiple) produced from previous blood transfusions—either direct or from pregnancies;

2. The direct Coombs' (antiglobulin) test may be affected by many factors, such as type (spectrum) and strength of antiglobulin sera, lab contamination, whether cells are incubated, whether read by micro- or macroscopic method; and when associated with a high reticulocyte count (usually 10%), a positive direct Coombs' test may be found on macroscopic reading (to prevent false positive reactions, Nelken describes absorbing the antiglobulin serum with reticulocyte-rich red cells prior to its use in the Coombs' test on patients with high reticulocyte counts;[23] incubation of the Coombs' sera in transferrin or using more specific Coombs' sera may also help eliminate "false positive" reaction);[5]

3. Clinically, the Coombs' test should usually yield clear-cut, macroscopically positive reactions which are consistent over at least a number of individual tests;

4. However, the *persistence* of the positive Coombs' test is quite variable—most patients with AHD have a positive test for a few weeks, though some may persist for months to a year or more;

5. Any condition associated with marrow suppression (eg infection, uremia, certain drugs, etc) may cause an already compensated marrow to be limited in its functional capacity and produce mild to severe anemia,[24] and thus,

6. Clinically, the anemia of AHD may cover a broad *spectrum* in that it may be mild or severe and its course may range from a single acute episode, or a chronic continued or remittent process, to an acute fulminant and fatal illness.[19]

7. Although AHD is not a common cause of severe anemia, it is a serious complication that significantly increases morbidity and mortality.

Two additional conditions may cause Coombs' positive hemolytic anemia but are

associated with *iso-immune* antibodies, which may be agglutinins, hemolysins, "incomplete" antibodies, or may show a combination of properties. One cause is transfusion reaction. Despite careful blood banking and blood administration technique, human error is still the most common cause of these hemolytic transfusion reactions.[19] Another cause of iso-immune Coombs' positive hemolytic anemia is hemolytic disease of the newborn (erythroblastosis fetalis and ABO incompatibility).[25] Pertinent points of the more common types of hemolytic and other anemias may be noted in *Tables 2* and *3*.

A group of *chemical agents* may cause a hemolytic anemia in which the Coombs' test is apparently variable. These drugs usually produce hemolytic effects in all persons, provided the dose is adequate and the exposure sufficiently prolonged. Some of these are phenylhydrazine, trinitrotoluene, toluene, benzene, nitrobenzene, dinitrobenzene, acetanilid, phenacetin, anilin, saponin, lecithin, promin, methyl chloride, allyl-propyl-disulfide arsine, lead, colloidal silver, and water,[1] (eg, complicating transurethral resections and in drowning).[5] Additional variable effects may be seen following exposure to these drugs and include marrow depression, liver damage, and methemoglobinemia.[19] Also, severe thermal burns and certain vegetable and animal poisons (snake bites, etc.) may cause hemolytic anemia. Thalassemia is a type of hemolytic anemia, although the morphology is usually not normocytic normochromic (see below). To be complete, the many oxidative chemical agents associated with the above mentioned G-6-PD deficiency Coombs' negative hemolytic anemia should be listed: most commonly these are sulfonamides and high (usually over 4 gms per day) aspirin doses; also primaquine, pamaquin, naphthalene, quinine, quinidine, sulfones, nitrofurantoin, diphenylhydantoin, phenothiazine, paraphenylinediamine, vitamin K substitutes, mesantoin, benzedrine, neoarsphenamine, chloromycetin, streptomycin, PAS, INH, and probenecid.[1] (See *Table 2* and *Figure 2* for an outline of the pathophysiology involved when these drugs are taken by a patient with G-6-PD deficiency.) Recently, it has been noted that a very large percentage of patients with acute G-6-PD deficiency were not associated with drug exposure but with other diseases, especially infections.[26] There have been reports that alpha-methyl dopa and cephalothin treatment may be associated with a positive direct Coombs' test, with or without hemolytic anemia.[27]

Microcytic Hypochromic Anemia

The second most common morphological type of anemia is *microcytic* hypochromic. In the form of iron deficiency anemia it is by far the most common anemia encountered in early childhood[28] and is a common cause of anemia in adults. McKenna and Erslev write that iron deficiency anemia ". . . may be the most common disease in man, with an estimated incidence of 10% to 20% of the world's population."[13] The diagnosis usually can be made by the history, characteristic blood smear, decreased reticulocyte count, and a clinical response to iron therapy. In certain questionable cases, determination of the serum iron and TIBC (total iron binding capacity—which is the same as transferrin) may be necessary.[29] The indications for serum iron studies are probably only: "iron deficiency anemia" not responsive to iron therapy; suspicion of an iron-loading disease, such as hemochromatosis; as an aid in diagnosing the anemia of chronic disease that is not easily diagnosed on initial workup[11] (*Table 5*); and possibly in the early detection of drug-induced erythropoietic depression (especially chloramphenicol if given chronically or in large doses).[30] Evaluation of *bone marrow hemosiderin* ("stainable iron") is the best measure of tissue iron stores and thus may be helpful; in iron deficiency anemia it is usually absent, whereas in other anemias (which may be microcytic hypochromic), such as with infection, uremia, rheumatoid arthritis, cancer, thalassemia, lead poisoning or hemolysis, it is normal or increased.[31]

(Continued on Page 315)



fall 1967

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this issue: smog, smaze or smust...

Smog, smaze or smust...effects of air pollution on upper respiratory tract

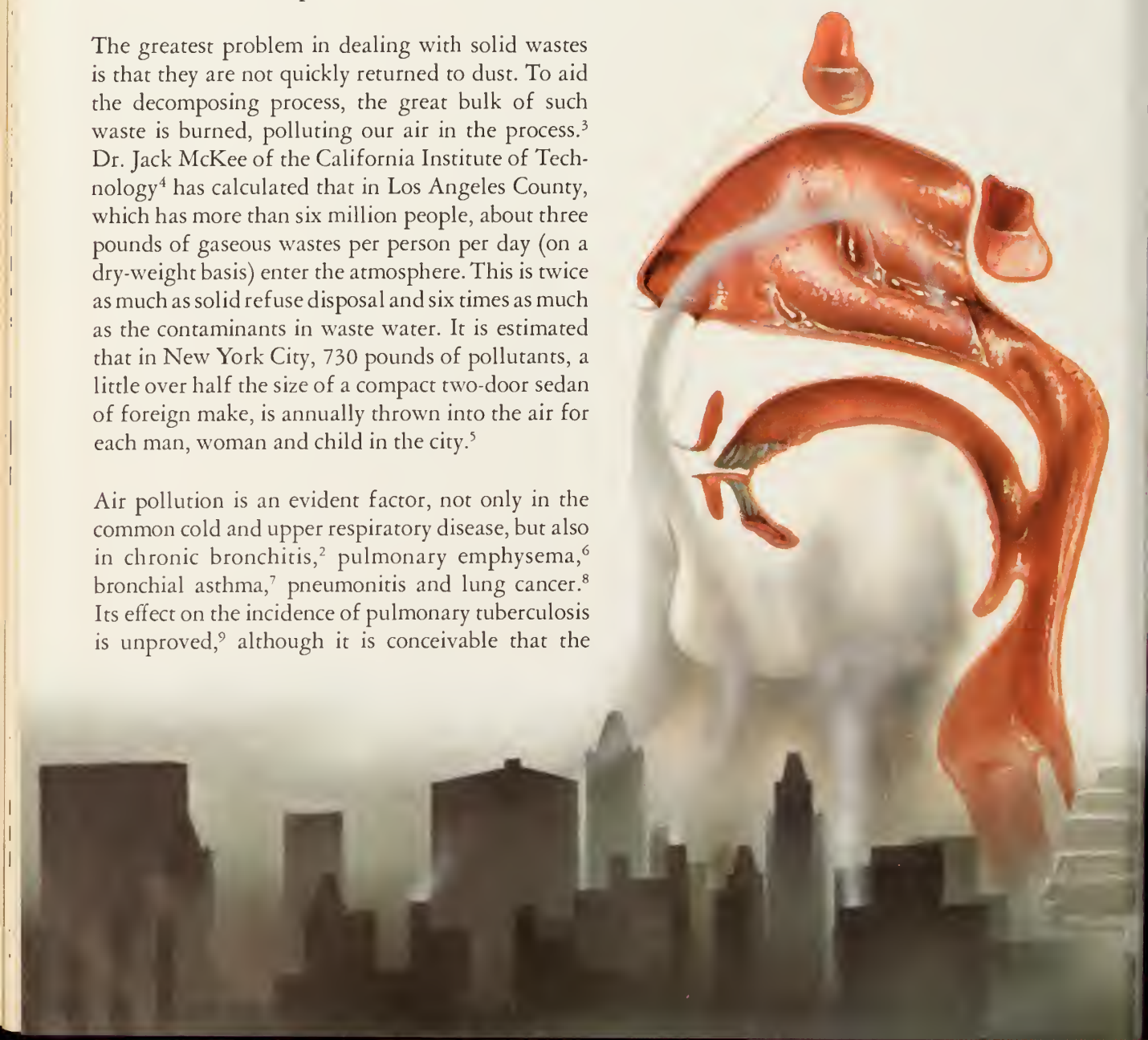
Nathan Flaxman, M.D., Diplomate, American Board of Internal Medicine, Chicago, Illinois

In Los Angeles it is *smog* (smoke and fog). In New York City *smaze* (smoke and haze). In El Paso *smust* (smoke and dust). The original factor was smoke plus such natural phenomena as fog, haze and dust, but air pollution has mushroomed from a smoke problem in our industrial cities into a major economic, esthetic and public health problem that affects practically every American locality and citizen.[1,2] Respiratory disease, of course, is by far the most costly effect of air pollution, for contaminated air can aggravate our illnesses, deplete our strength and shorten our life span.[1]

The greatest problem in dealing with solid wastes is that they are not quickly returned to dust. To aid the decomposing process, the great bulk of such waste is burned, polluting our air in the process.[3] Dr. Jack McKee of the California Institute of Technology[4] has calculated that in Los Angeles County, which has more than six million people, about three pounds of gaseous wastes per person per day (on a dry-weight basis) enter the atmosphere. This is twice as much as solid refuse disposal and six times as much as the contaminants in waste water. It is estimated that in New York City, 730 pounds of pollutants, a little over half the size of a compact two-door sedan of foreign make, is annually thrown into the air for each man, woman and child in the city.[5]

Air pollution is an evident factor, not only in the common cold and upper respiratory disease, but also in chronic bronchitis,[2] pulmonary emphysema,[6] bronchial asthma,[7] pneumonitis and lung cancer.[8] Its effect on the incidence of pulmonary tuberculosis is unproved,[9] although it is conceivable that the presence of various materials polluting the air might do this. A siege of smog in Denver, the "mile high city," in December 1965 was accompanied by respiratory infection that doubled normal absentee rates in schools, factories and city government.[10]

While air pollution is only one factor, it has become important in the causes of most of the afflictions of the respiratory tract. This has been shown not only by the Denver occurrence, but also by detailed study[2] of respiratory illness in a small group of 313 men



from October 1962 to May 1963 when there were 202 episodes involving the upper respiratory tract. The attack rate of illness was related in time to increased concentration of both smoke and sulphur dioxide in the atmosphere of the district in which the men lived.

Other factors often mentioned, include exposure to those who have colds, exposure to extreme changes of temperature, allergy and bacterial infection. However, when low individual resistance due to lack of rest, overwork, fatigue, improper or unbalanced diet, previous illness and emotional stress are included as causes, we enter the realm of somewhat obscure relationships. Much more emphasis can be placed on the role of polluted air.

The symptoms, signs and complications of involvement of the upper respiratory tract, especially the common cold, are the same regardless of the causative factor. Swelling of the lining of the nose, the scratchy dry throat, the discharge from the nose at first watery then thicker, discolored and more tenacious, the eyes tearing, and frequent sneezing are all part of the Number 1 human ailment. Concurrent or residual sinusitis when mucus is trapped there, middle ear involvement due to interference with drainage, laryngitis and bronchitis are complications of the common cold. The primary interference is with a most important function of the nose—the cleansing of foreign matter in the first line of "air defense" to prevent it from entering the breathing tract.

However, the diagnosis and subsequent decision on how to treat the patient so affected rests basically on the relief of symptoms that cause him the misery. The stuffed, runny nose, the clogged ears, and the harsh dry cough—all the symptoms that make common cold sufferers feel miserable and interfere with their sleep—can be alleviated with medications of the oral nasal decongestant/antihistamine combination type. The burning sensation in the throat, soreness of the chest and even chest pain can also be relieved by such medication. Rest in bed if there is fever (but confined to home at least), liberal fluids, uniformly warm surroundings and adequate humidity in the room, are all helpful adjuncts to the medication. Most common cold sufferers recover rapidly and are symptom-free in four to ten days.

Further treatment, altered by the fact that the affliction hangs on for more than the usual duration of the common cold, requires consideration of allergy, which is most frequently the prolonging factor. But air pollution itself may often be the culprit.

(Concluded on following page)

For nature's hazards:
nasal congestion
due to seasonal
allergies and
summer colds



Triaminic® *syrup*

Each teaspoonful (5 ml.) contains:

Phenylpropanolamine hydrochloride	12.5 mg.
Pheniramine maleate	6.25 mg.
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For nasal congestion regardless of cause, you can bring quick, lasting comfort to your little patients with Triaminic Syrup. You may occasionally encounter these side effects: drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: the possibility of drowsiness should be considered by patients engaged in mechanical operations requiring alertness. Use with caution in patients with hypertension, heart disease, diabetes, or thyrotoxicosis.

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At the Third National Conference on Air Pollution held recently, it was emphasized that this subject had received more attention in the past four years than in all previous history. Spicer,[11] an active participant at this conference, reiterated that it behooves the practicing physician to be aware of trends in respiratory disease and to accept a major role in community action relating to air pollution and respiratory health. By taking a positive stand physicians have been instrumental in the development of anti-pollution legislation. An outstanding example is Los Angeles where major steps have been taken by abolishing coal burning, and even banishing oil burning, seven months a year. Natural gas must be used instead and it must be used by industry when available. Backyard incinerators have been abolished in favor of landfill disposal, and building incineration ended except for a few expensive smokeless furnaces.[10] Concerted action can be taken against particular industrial nuisances. One company that disregarded complaints discovered its error when thousands of its credit cards were returned by irate customers who decided to patronize competing companies.[12]

Summary. Respiratory disease is the most important and most costly effect of air pollution, whether termed smog, smaze, or smust. Air pollution is an economic, esthetic and public health problem that affects practically every American locality and citizen. New sources of air pollution are invisible and odorless, but the harmful gases and liquid droplets are there. Triggered by sunlight, some of these undergo mid-air chemical changes and the results are even more irritating to the upper respiratory tract. The symptoms, signs and complications, especially of the upper respiratory tract, can be readily aborted by modern medication but may be unduly prolonged by polluted air. In steps taken to prevent this, the practicing physician can take a major role.

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Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

(Continued from Page 310)

TABLE 4

DIFFERENCES BETWEEN TWO TYPES OF AUTOANTIBODIES IN AUTOIMMUNE (COOMBS' POSITIVE) HEMOLYTIC ANEMIA.[21, 55, 56] BOTH TYPES OF ANTIBODIES MAY BE PRESENT IN THE SAME PATIENT AND MAY BE NON-SPECIFIC IN THEIR ACTIVITY.[57]

Type Antibody	Gamma Globulin	Characteristic	Diseases	Age Group	Prognosis in "Idiopathic" AHD
Warm (synonyms: incomplete, blocking, immune, complement-requiring, anti-effective).	7-S	reacts at body temperature, occasionally below. more common than cold type.	non-specific; "idiopathic" or secondary. may be related to ITP.	any age (though uncommon in children).[21]	long-term prognosis poor, with or without steroids or splenectomy.
Cold (synonyms: Donath-Landsteiner type, direct agglutinin).	19-S	generally inactive above 32 C. (Coombs' test may be negative unless blood is chilled).	paroxysmal cold hemoglobinuria; primary atypical pneumonia and other viral diseases; "idiopathic";[6] AHD with lymphocytic disease, trypanosomiasis, and "cold agglutinin disease" (very high antibody titers, and often associated with Raynaud's phenomenon).[54]	elderly	better long-term, but steroids less effective. (prognosis with warm and/or cold antibodies dependent on underlying disease.)

Because iron deficiency enemia is so common and is treatable, it should be emphasized that its development is *sequential*. Therefore, it may be seen as a spectrum from an asymptomatic state (and thus go unrecognized) to severe microcytic hypochromic anemia with epithelial changes such as spoon nails (koilonychia), glossitis, dysphagia, hypopharyngeal webs (sideropenic dysphagia, Plummer-Vinson syndrome, or Paterson-Kelly syndrome), gastric atrophy, intestinal villi abnormalities, and hepatomegaly (*Figure 4*). Kasper (*et al*) stress that in an adult with anemia of undetermined etiology, iron deficiency anemia must be considered because in their series of 100 patients with the disease, 21 had normal or above normal red cell size.[32]

Iron deficiency anemia is a disease, but more importantly, it is a *symptom*. Thus one must proceed to *determine the specific etiology* (or *etiologies*) *of iron lack*. In a series of 371 *adult* inpatient cases, known gastrointestinal bleeding was found in 43%. By far the most common causes, in order of their frequency, were hemorrhoids, salicylate ingestion, peptic ulceration, hiatus hernia, diverticulosis, and neoplasm. Menorrhagia was the commonest single cause of iron lack anemia among the women in the study.[33] In some areas, the eating of starch is associated with iron deficiency anemia, especially in Negro women.[34] Because occult blood loss may be associated in over 50% of cases in *infants*, this should be searched for, especially in the stool.[35] However, one should bear in mind that many infants with iron deficiency anemia will have occult blood in the stool associated with just the iron deficiency, or perhaps occasionally with whole cow's milk sensitization. Therefore, the occult blood loss as a *cause* of iron deficiency probably should not be entertained until after the disease has been treated.[36] Additional causes of iron deficiency (with special reference to children) are listed under the case discussion toward the end of this article.

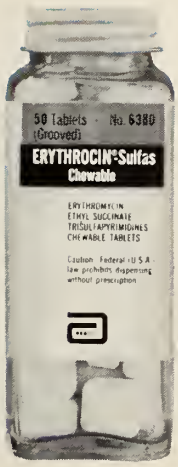
Since *therapeutic* trial is so important in iron deficiency anemia (and other anemias for that matter), mention should be made of the patient who fails to respond to oral iron therapy. The causes may be: wrong diagnosis; failure to take medication (iron may be "the drug most likely *not* to be taken"); failure of the particular iron preparation to yield sufficient absorbable ferrous iron; continued blood loss (part of the treatment is correction of the cause); complicating disease impairing response (eg, infection, uremia, etc);[37] uncommonly, certain iron preparations given in milk (phosphate

(Continued on Page 318)



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In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

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A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

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Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

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(Continued from Page 315)

may chelate iron); and rarely, associated gastrointestinal malabsorption.

It is often forgotten that *certain chronic diseases* may also be associated with a microcytic hypochromic anemia and a decreased reticulocyte count. These diseases are: chronic infection and other chronic inflammations, lead poisoning, uremia, cancer, rheumatoid arthritis, sideroachrestic anemia,[22, 38] and the rare pyridoxine (vitamin B_6) deficiency anemia.[10, 39] A pathophysiologic explanation for some of these may be noted in *Figure 7*. The thalassemia syndrome anemias are usually also of the microcytic hypochromic type, but have an increased reticulocyte count (*Tables 2* and *3, Figures 6* and 7).[1, 40]

Macrocytic Anemia

Because specific treatment varies (oral or parenteral vitamins, diets, surgery, or simple observation) and since both physician and patient should know the diagnosis, the *cause* of macrocytic anemia should be determined.

When a *macrocytic anemia* (*Figure 7*) is discovered and no obvious cause is present, one approach to diagnosis is to insert a nasogastric tube and test the *gastric contents for acid*. If acid is present (pH less than 3.5), either with or without maximal histamine stimulation, the diagnosis of pernicious anemia (PA) in patients over 30 can, for all practical purposes, be excluded.[41] Maximal histamine-fast achlorhydria, however, warrants a *Schilling test* (radioactive cobalt vitamin B_{12} absorption) which, if less than 5%, should be followed by a repeat Schilling test with intrinsic factor. If the latter is greater than 7%, the diagnosis of PA can be made. Because the parenteral vitamin B_{12} used in the Schilling test constitutes a partial therapeutic trial and an additional diagnostic aid, baseline and follow-up reticulocyte counts should be done. It should be emphasized, however, that the mass-action effect of such large doses of vitamin B_{12} paren-

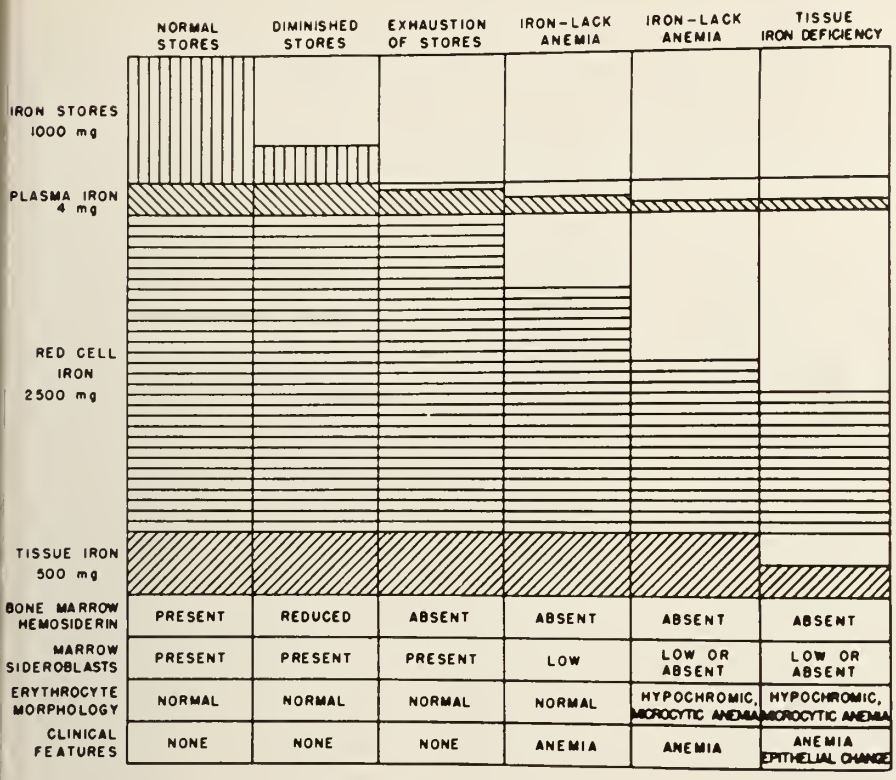


Figure 4—Sequence of events in development of iron-lack anemia. (From Harris, J. W.: THE RED CELL, The Commonwealth Fund and Harvard University Press, 1963. With permission.)

terally may induce a nonspecific response in folic acid deficiency.[42] Although not as accurate as a diagnostic test, some physicians may prefer a *minimal dosage therapeutic trial of vitamin* B_{12} in place of the Schilling test in the patient found to have maximum histamine-fast achlorhydria and megaloblastic anemia. However, since preparations of such minimal dosage are not commercially available in the USA, they would have to be specially prepared and accurately diluted. If faced with such a decision, one might note that usually the more closely a test can measure the pathophysiology (*Table 2*) of a disease, the more accurate it is as a diagnostic tool.[41] Indeed, some hematologists do not routinely do gastric analysis (quite an ordeal for some patients when maximal histamine stimulated) or bone marrow examination on the patient with suspected PA. They prefer the differential Schilling tests because they will usually have to be done eventually. Also, with the results of these two Schilling tests, almost all of the macrocytic anemias can be separated as to etiology.

If one tests for gastric acid and it is *present, a bone marrow* examination should be done. Most often this marrow will be found to be *megaloblastic*, and with rare exceptions the anemia will then be due to lack of either vitamin B_{12} or folic acid.[43] It should be added that marrow examination in no way separates vitamin B_{12} from folic acid deficiency. A hypothesis explaining some of the clinical differences between these two vitamin deficiencies is illustrated in *Figure 9*.

The eight major causes of megaloblastic anemia (other than PA) are: dietary deficiency (most often in recluses, alcoholics, occasionally in vegetarians); malabsorption syndromes (see next paragraph); drug effects (including ethanol, antimetabolites, dilantin, and other anticonvulsants [all thought due to folic acid antagonism at physiologic levels of dietary folic acid], furadantin, triampterin, colchicine, and any antibiotic that alters the jejunal flora); pregnancy (most often due to dietary lack of folic acid); infancy (also usually diet associated); intestinal parasites; severe, chronic hemolytic anemia; and "refractory" type (here look for

leukemia; this may be so-called DiGuglielmo's syndrome).

Hypersegmented polys (five to seven lobes per nucleus and greater than two per cent of the total polys) should alert the physician to megaloblastic anemia, but are not entirely specific unless accompanied by the other classical changes in the peripheral blood and bone marrow.[43] (These polys are seen rarely in myelosuppressive drug therapy, granulocytic leukemia, renal failure, and as a normal variation.) Hypersegmenters may be the earliest visible change in EMF deficiency, followed in order by oval macrocytosis, megaloblastic marrow, and finally, anemia.

Non-megaloblastic marrow and macrocytic anemia may be associated with reticulocytosis, chronic liver disease, hypothyroidism, and occasionally aplastic anemia and leukemia.

It should be emphasized that true ("Addisonian") pernicious anemia is by far the most common cause of megaloblastic anemia.[41] PA may mimic many other diseases (both hematologic and non-hematologic), especially hypothyroidism and uremia. In one study, presenting symptoms were most often those of more common diseases or were due to aggravation of underlying heart disease.[59] The neurologic component is often misdiagnosed. Because the incidence of gastric carcinoma in PA is about four times that of the general population, some hematologists recommend an upper GI series periodically (either yearly or when anorexia, weight loss, or recurrent anemia appear). Since PA is no longer truly "pernicious" (ie, a refractory, relentlessly progressive, fatal illness), the diagnosis should be substantiated and proper treatment given.[42]

TABLE 5

COMPARISON OF IRON VALUES IN ANEMIA OF CHRONIC DISORDERS WITH IRON DEFICIENCY ANEMIA AND SIDEROACHRESTIC ANEMIA.

	Chronic Disorders	Iron Deficiency	Sideroachrestic Anemia
Plasma Iron	↓	↓	↑
TIBC	↓	↑	↓
BM—RE Iron	↑	↓	↑

(TIBC, total iron binding capacity; BM, bone marrow; RE, reticuloendothelial.)

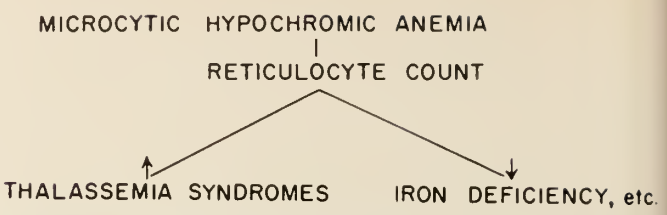


Figure 6—An outline for helping diagnose microcytic, hypochromic anemia.

Special mention should be made of *malabsorption syndromes* associated with megaloblastic anemia. Here the etiologic possibilities are many, but the study of such a patient might initially include: a complete dietary history, physical examination, upper GI series if evidence of abdominal surgery is present, and differential Schilling tests.[43] The Schilling test with intrinsic factor may be used to differentiate malabsorption (no labeled B_{12} absorption) from PA (absorption and urinary excretion high).

Bone Marrow

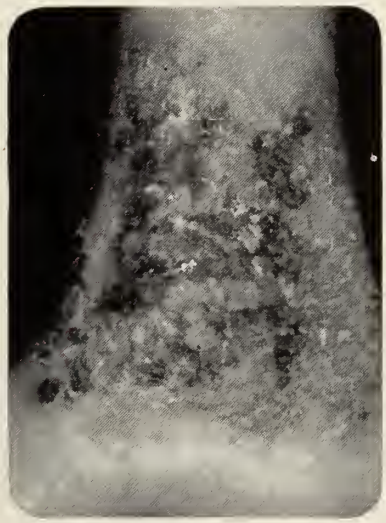
Examination of a *bone marrow* sample is often necessary and may alter the course of a particular work-up (an example would be pernicious anemia presenting with hypochromic red cells on peripheral smear due to a coexisting blood loss anemia). The bone marrow sample is mostly useful in answering four questions: Is *erythropoiesis hyperplastic* or *hypoplastic?* Is it *megaloblastic?* Are *iron stores* adequate? Are there any *underlying diseases,* eg, aleukemic leukemia?[44] Some hematologists feel that every patient with severe anemia should probably have a bone marrow examination.[45] Several brief marrow descriptions are in *Table 3* and three examples are in *Figure 5.*

Judgment in Ordering Lab Tests

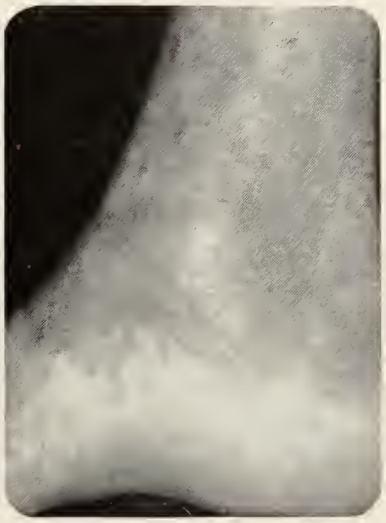
Many simple and complex lab studies are included in this discussion. However, *judgment* should be used in ordering most of them. For example, in diagnosing the anemia of a one-year-old infant with a hematocrit of 26 vol%, one would first obtain a complete history, including dietary information.

(Continued on Page 322)

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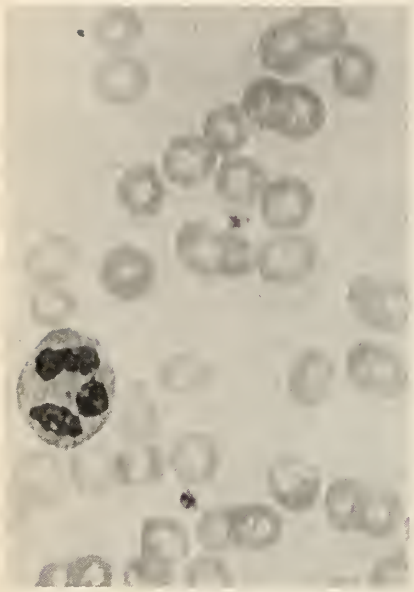
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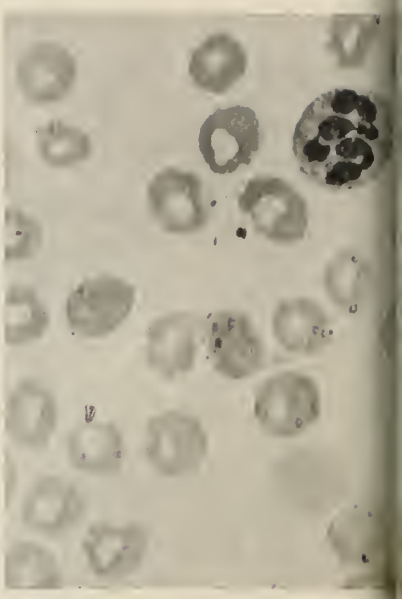
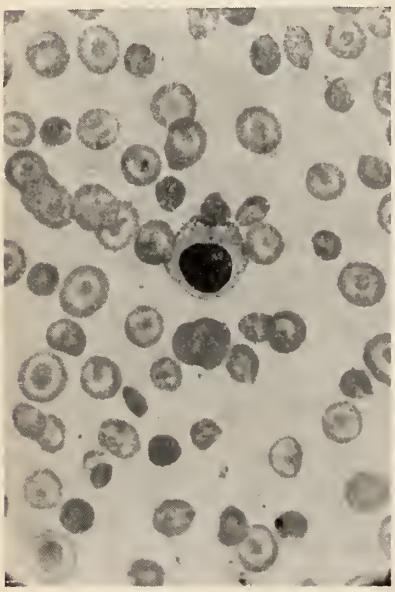


Figure 5—Photomicrographs of blood smears and bone marrows in various disorders. (All are oil immersion, X900, Wright's stained.)

a. Normal peripheral smear. Note normal poly for size comparison. Platelets are present.

b. Microcytic, hypochromic anemia from a patient who had a history of blood loss secondary to high doses of salicylates. Good response to decreasing dosage of aspirin, antacids, and oral iron. The sickle cells seen here were artifacts.

c. Macrocytic anemia. Note the hypersegmented poly. Red cell inclusions are artifacts, commonly seen, especially if oxalated blood used for smear.







d. Thalassemia major. This patient has more abundant target cells than usually seen in thalassemia. Note spherocytes (small, dark erythrocytes) and very few normal erythrocytes.

e. Hemolytic disease of newborn. Note two nucleated red cells (normoblastemia), some spherocytosis, and macrocytosis (having a bluish tinge on the original slide).

f. Basophillic stippling in a patient with chronic arsenic intoxication secondary to consuming large amounts of unbonded, contaminated whiskey.

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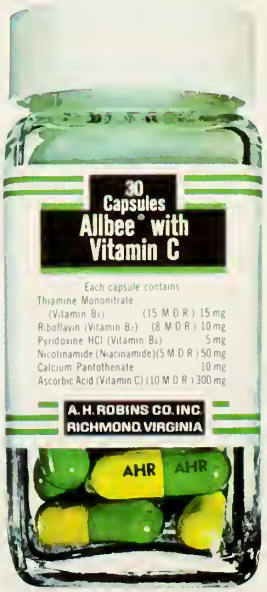
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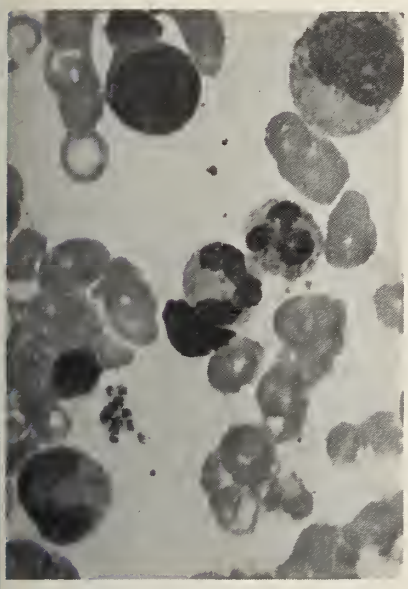
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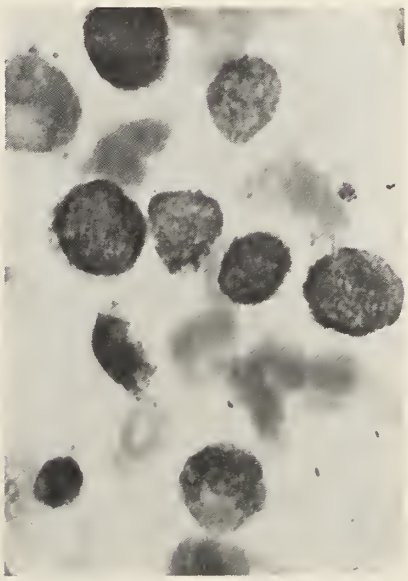
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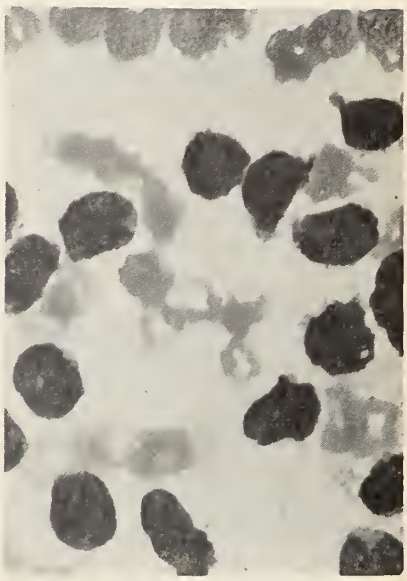
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g. Normal bone marrow. Note that because of the absence of color the very early red and white cell precursors cannot be definitely differentiated (upper two cells). A metarubricyte is on the left.



h. Megaloblastic bone marrow. Note darker cytoplasm and larger nuclei, with a "boiled rice" appearance of the latter.



i. Marrow of patient with acute leukemia. Note decreased platelets.

It may be found that the baby has a reason for being iron deficient. These are: iron deficient mother; prematurity (because fetal iron storage takes place only during the last weeks of intra-uterine life, plus other less important causes); blood loss before or after birth; *any* baby over 4-6 months old who is not fed sufficient iron-containing cereals and recommended foods other than just milk (a synonym for infant iron deficiency anemia is "MILK anemia").

After physical examination, a peripheral smear interpretation by the physician would be in order, which in the example of the one-year-old would most often show hypochromic microcytic red cells (see *Figure* 5). Next, a reticulocyte count would be most helpful. If it were decreased or "normal," the diagnosis of iron deficiency anemia could be presumed, the baby started on iron, and the cause or causes of the production of iron deficiency anemia corrected. If in follow-up two weeks later the baby's hematocrit were 37 vol%, the diagnosis of iron deficiency anemia would be confirmed. Thus by *history, physical, peripheral smear, reticulocyte count,* and *therapeutic trial* with follow-up, the diagnosis would be established.

In dealing with infants and children, one should remember that after about age two months, a hematocrit of 31 to 35 vols% is usually entirely normal and may remain at this level up until about age three years, when a gradual climb toward the normal adult level begins.[1] The significance here is, like that in patients with some of the more rare hemoglobinopathies (eg, Hgbs C, D, E, G, and H), that unnecessary and often meddlesome diagnostic and therapeutic maneuvers should be avoided in the otherwise healthy patient.[5,8] This does not mean, of course, that oral iron supplement as needed should be avoided during periods of rapid growth.

The special but not rare situation of the anemic patient who has a dangerously low hematocrit (eg, 10 to 20 vols%) may cause a difficult diagnostic problem if the patient is transfused with blood before certain diagnostic procedures are done. Because morphology of both peripheral blood and bone marrow may be significantly distorted after transfusion, these tests, along with others as indicated, should be collected as soon as possible and two or three extra tubes of blood saved for studies that might be needed on the

patient's unaltered blood. Mahoney states that the ". . . treatment of anemia before diagnosis may obscure all subsequent attempts to make a diagnosis for many months. Nothing is more frustrating than to be called to see a patient admitted to the hospital with a fractured hip, found to have a hemoglobin level of 6.0gm/100 ml, transfused to 14.0 gm, and then as an afterthought, the hematology service invited to see the patient. We frequently have to recommend that such a patient return in eight weeks to be seen when we can examine her blood rather than the blood of the six donors."[60] Whether immediate transfusion is necessary should be decided by *the patient's individual* situation. If such an emergency exists, blood and often bone marrow samples can be obtained quickly while waiting for typing and cross matching and while other necessary treatment is in progress.

Therapeutic trial, itself a type of diagnostic test, has been mentioned in the discussion of iron deficiency anemia. It should be stressed that because a state of *combined* deficiency of hematopoietic agents is rare in this country today, diagnostic accuracy usually can be determined by administration of a single agent in proper dosage and the demonstration of a significant rise in reticulocyte count, usually seven to ten days later. In his article on therapeutic response, Yettra points out that approximately one third of the money spent annually for *prescribed* hematinics is on "shotgun" medications. "These combinations are as illogical as a tablet containing digitalis, quinidine, nitroglycerine, and a diuretic for the treatment of cardiac disease."[6]

Four Final Points

1. In anemia, as in other symptoms or signs, *multiple etiologies* may be and are often present.

2. *Pathophysiology* is the basis of all medicine. Study and use it in diagnosing and treating your patient who is anemic. One will usually benefit by repeatedly asking "why?"—*why* is this patient anemic? If iron deficient, *why?* If the red cells are stippled, *why?*

3. Because the original diagnosis may be wrong or the patient may not respond to therapy, follow-up is of utmost importance.

4. This brief summary is just that: BRIEF. Exceptions will, no doubt, be found to this and to the accompanying tables and figures, but in general I have found it to be very helpful in studying, classifying, understanding, and, especially, in diagnosing the patient who is anemic.

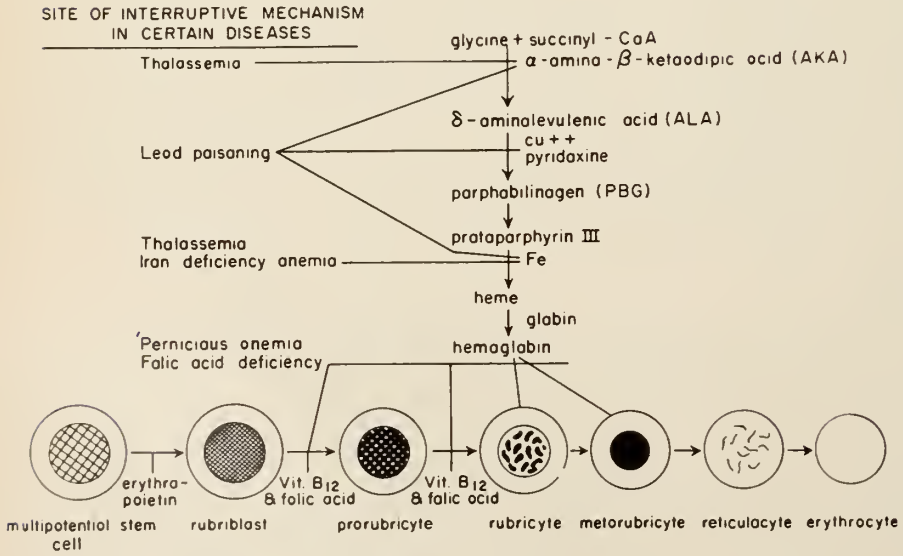


Figure 7—Schema for synthesis of hemoglobin in the human red cell in health and certain diseases.

Note that the only causes of hypochromic anemia are defects in the process of hemoglobin synthesis or its incorporation in the red cell precursors. Regarding thalassemia: abnormalities other than those pictured are probably present (see Table 2).

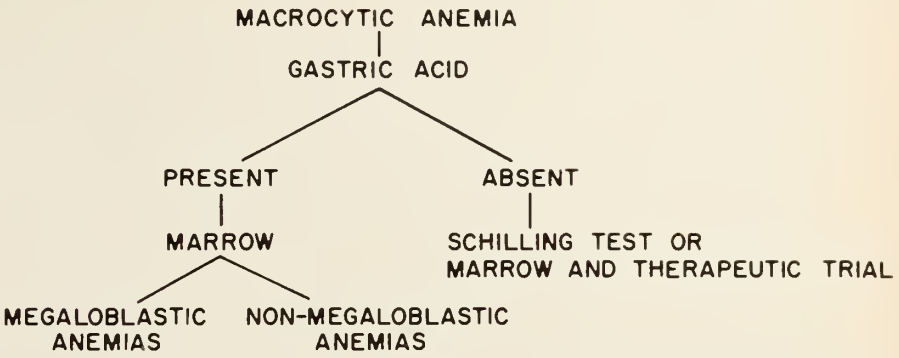


Figure 8—An outline for helping diagnose macrocytic anemia. As noted in the text, some physicians may prefer to proceed directly to the differential Schilling tests.

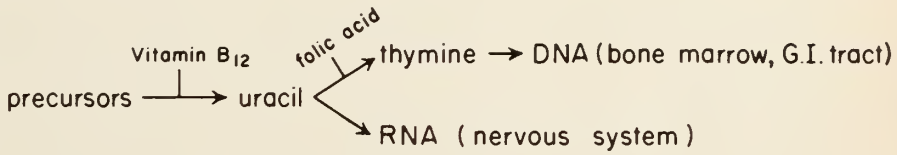


Figure 9—An outline of DNA and RNA production. This is Nieweg's hypothesis, which postulates that folic acid is mainly concerned with DNA metabolism, and ". . . would explain how a deficiency of folic acid could produce gastrointestinal and bone marrow abnormalities unaccompanied by neurologic lesions; a deficiency of vitamin B_{12} could cause neurologic disease as a result of RNA deficiency as well as changes in the bone marrow and gastrointestinal tract from DNA deficiency." (From Leavell, B.S. and Thorup, D.A.: FUNDAMENTALS OF CLINICAL HEMATOLOGY, W. B. Saunders Co, Philadelphia and London, 1966.)

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Report of Title XIX Ad Hoc Committee

On July 31, 1965, President Johnson signed Public Law 89-97 which added two titles to the Social Security Act—Title XVIII (Medicare) and Title XIX (Medicaid). The first development of significance in regard to Alabama's participation in Title XIX occurred on November 19, 1965, when Governor George C. Wallace designated the Alabama State Department of Pensions and Security as the single state agency to administer the program.

Title XIX establishes a new program under the Social Security Act which authorizes the appropriation each year of a sum sufficient to be used as grants to the states to furnish (a) medical assistance on behalf of families with dependent children and on behalf of aged, blind, or permanently disabled individuals whose incomes and resources are insufficient to meet the cost of necessary medical care, and (b) rehabilitation and other services to help such families and individuals attain or retain capability for independent or self-care.

It became immediately evident that this program is basically a health care program and not a welfare program and this was further attested by a study of the services which ultimately must be included under the medical assistance requirement of the law. These include:

1. Inpatient hospital services.
2. Outpatient hospital services.
3. Other laboratory and X-ray services.
4. Skilled Nursing home services.
5. Physician's services.
6. Medical care or any other type of remedial care recognized under state law furnished by licensed practitioners within the scope of their practice as defined by state law.
7. Home health care services.
8. Private duty nursing services.
9. Clinic services.
10. Dental services.
11. Physical therapy and related services.
12. Prescribed drugs, eyeglasses, dentures, and prosthetic devices.
13. Other diagnostic, screening, preventive, and rehabilitative services.
14. Inpatient hospital services and skilled nursing home services for individuals 65 or over in an institution for tuberculosis or mental diseases.
15. Any other medical or remedial care recognized under state law specified by the Secretary (HEW).

According to the provision of the Act, the

state welfare agency (Pensions and Security in Alabama) is given the responsibility for determining reasonable standards of eligibility for those who would receive benefits under the Act. Of greatest importance here was a realization of the fact that anyone might be eligible if he becomes medically indigent. Also the standards of eligibility might be set initially or raised alternately to include a large majority of a state population.

With this background of information it became apparent that with Title XIX we were dealing with an open-ended program including comprehensive health coverage for potentially a very large segment of our society. It was estimated that this program may encompass 40% of the practice of medicine in Alabama at the present time.

In January of 1966, Dr. J. O. Finney, President-elect of the Medical Association of Alabama, reported on an AMA-sponsored National Conference on Medical Assistance Programs, and in his report emphasized that Title XIX was basically a health-care program and not a welfare program, and was in need of medical leadership. He emphasized that it was most necessary that the Medical Profession assume this leadership in the implementation of the Title XIX program.

In the months that followed it became increasingly evident that no satisfactory arrangement could be reached with the Department of Pensions and Security as the single state agency. On several occasions representatives of the Medical Association of the State of Alabama attempted to confer with Commissioner Ruben King but these efforts met with failure.

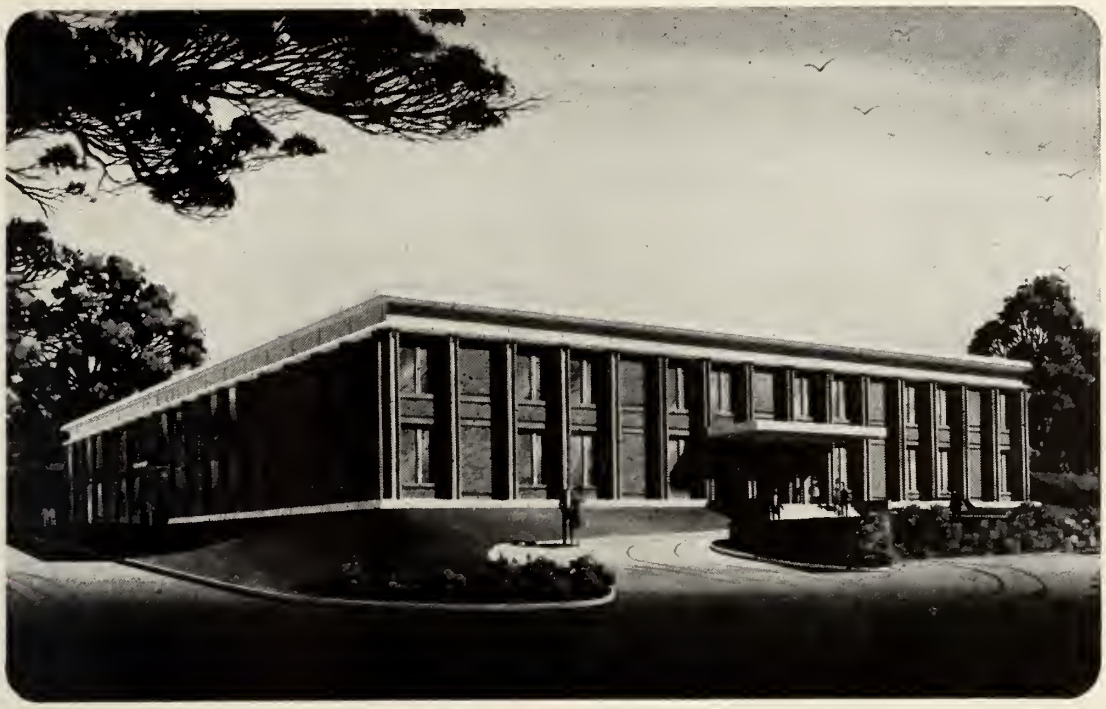
It was with this background that a special Called Meeting of the College of Counsellors and House of Delegates was summoned by Dr. Finney for November 6, 1966. It was at this Called Meeting that a fifteen-point Statement of Position was adopted by the State Association on Title XIX. If adopted it was felt that this Statement of Position could properly protect the position of the State Department of Health in its efforts to work in conjunction with the existing single state agency.

Shortly after this meeting, the Department of Pensions and Security submitted a proposed agreement whereby the Department of Pensions and Security would function as a single state agency for Title XIX, contracting with the Department of Public Health to administer certain medical aspects of the program. During the next two months attempts to negotiate this contract were handled by Dr. Ira L. Myers, State Health Officer, and Commissioner Ruben King. These attempted negotiations were fruitless since the proposed agreement contained numerous positions objected to by the Board of Censors and were inconsistent with the Statement of Position.

It was decided that no further conferences between Dr. Myers and Mr. King were to be held relative to a Title XIX contract until the Medical Association could formulate its opinion and make further plans. The Board of Censors determined that the Association should attempt to persuade the Governor to transfer the designation of single state agency from Pensions and Security to the Health Department.

On December 13, 1966, a delegation from the Medical Association met in conference with Governor George C. Wallace regarding Title XIX. Those representing the Medical Association were: Drs. Robert Parker, John Chenault, and J. Garber Galbraith, and Mr. Bob Ingram of the MASA staff. Others attending the meeting were Commissioner Ruben King of the Department of Pensions and Security, and Mr. Hugh Maddox, Legal Adviser to the Governor. The MASA position was outlined in detail, but there was no indication by Governor Wallace that he was willing to change the designation of the single state agency. As a result of this meeting, however, Mr. Maddox made it quite clear that although there appeared little likelihood of any change in designation of the single state agency, Governor Wallace had

(Continued on Page 332)



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(Continued from Page 330)

expressed a desire that a compromise plan be worked out which would be satisfactory to the medical profession, and urged that the Medical Association and Commissioner King begin negotiations toward reaching such a compromise.

On the basis of this request, the Board of Censors at its January 18, 1967 meeting directed the Central Office Staff to prepare a proposed agreement between the Department of Pensions and Security and the State Department of Public Health, using a former draft proposal of the Department of Pensions and Security as a base for negotiations, which would conform with the November 6th. Statement of Position. In its February meeting, the Board reviewed the draft, making numerous changes, and shortly after this another conference was held with Mr. Maddox, who was given a copy of the proposed contract by the Departments of Health, and Pensions and Security and was advised that the Medical Association was making every effort to work out a satisfactory agreement with Commissioner King. After reviewing the draft, the Board of Censors instructed that a copy be mailed to each Counsellor, Delegate, and County Medical Society President for study and recommendations.

On March 21, 1967, Dr. Finney issued an official call for six regional meetings of Counsellors, Delegates, and County Society Presidents for the purpose of reviewing the second draft of the proposed agreement prepared by direction of the Board of Censors to permit discussion of this subject at the 1967 Annual Session.

During the annual session of the Medical Association meeting in Montgomery, April 20-22, 1967, a series of conferences were held on Title XIX by the Board of Censors. On April 22, at the meeting of the Counsellors and Delegates, the Board recommended the creation of a Title XIX Ad Hoc Committee, authorized to negotiate in behalf of MASA to work out a satisfactory solution which, if possible, would embrace the 15 points included in the Statement of Position adopted November 6, 1966. Named to this Committee were Drs. Paul W. Burleson, Chairman, Hugh E. Gray, and Luther L. Hill. Named as Consultants were Drs. Robert Parker, James G. Donald, and J. Garber Galbraith.

On invitation of MASA, May 16, 1967, representatives of the four major providers of medical services met at the Midtown Holiday Inn in Montgomery. Those groups included in the meeting were, in addition to the Medical Association representatives, the Alabama Pharmaceutical Association; Alabama Hospital Association; and Alabama Nursing Home Association. Dr. John Chenault, Chairman of the Board of Censors, chaired this meeting, and other medical representatives included Drs. Burleson, Gray, Hill, Parker, and M. Vaun Adams, and Mr. L. P. Patterson, Executive Director, MASA.

It was agreed at this meeting that the four major providers of service should unite in support of the designation of the Board of Health as the single state agency to administer Title XIX, and it was further agreed that a delegation would seek an audience with Governor Lurleen Wallace to discuss this matter at once.

Two weeks later on May 31, 1967, a delegation of the providers of services met with former Governor George C. Wallace to discuss Title XIX. Present at this meeting were Drs. Chenault and Burleson, and Mr. Ingram, representing MASA; Mr. Harold Steadham, Alabama Hospital Association; Mr. Lester Thaggard, Alabama Pharmaceutical Association; Lt. Governor Albert Brewer, Senator Roland Cooper, and Senator Jimmy Clark. Governor Lurleen Wallace was unable to attend the meeting because of illness.

Mr. Wallace was briefed on the entire Title XIX situation with emphasis on the fact that the four major providers of service were united in believing that the Board of Health was best equipped to be the single state agency. Mr. Wallace appeared to be most receptive but made no commitment at this time.

It was agreed by the conferees after the meeting that a bill would be drafted for introduction in the Legislature making the change in designation.

On June 8, 1967, a second meeting with the providers of services and their respective legal counsels was held at the Association Building with Dr. Burleson presiding. It was at this meeting that a sharp controversy arose over the proposed bill, as regard to the authority to be granted to the proposed Advisory Committee. Legal counsel for the hospitals and nursing homes insisted that all actions of the Board of Health be subject to the "advice and approval" of the Advisory Committee. At the conclusion of this meeting it was decided that the proposed bill would tentatively include this language, but that the United States Department of Health, Education and Welfare, would be asked an advisory opinion as to whether such a provision violated the single state agency concept of the Federal law. A letter was drafted over Dr. Myer's signature and addressed to HEW Secretary John Gardner after approval of the Board of Censors, and on June 14 was mailed to Washington.

On June 15, 1967, following a meeting of the State Board of Mental Health, at which time this matter was under discussion, Assistant Attorney General Bob Miller pointed out that any Title XIX plan submitted to the Department of HEW, had to be certified and approved by the Attorney General of Alabama. He suggested that Attorney General Gallion might be asked for an advisory ruling as to whether or not the contested provision of the proposed bill would be acceptable to him. Drs. Burleson, Chenault, and Hill, Mr. Bernard Sikes and Mr. Ingram met with Mr. Gallion. He stated that such language would not be acceptable, and a letter was written with an advisory opinion to that effect.

The following day, June 16, 1967, Mr. Rod Nachman, attorney for the Hospital Association, met with HEW officials in Washington and was advised that the single state agency could not be subjected to the "advice and approval" of the proposed Advisory Committee. It was suggested instead that the language be "consider the advice and approval." All parties agreed to this amendment and a bill was so drafted.

A few days later former Governor George Wallace was approached requesting his approval to the introduction of this bill, and although he would not agree to support the bill, stated that the Administration would take a "hands off" policy on the matter. Senator Roland Cooper introduced the measure as Senate Bill 293, and the bill was cosponsored by Senators Pierre Pelham, Ray Lolley, and C. C. Torbert. It was assigned to the Senate Health Committee.

On June 27, 1967, this Bill was given a favorable report by the Senate Health Committee and returned to the Senate for its second reading.

The following day, on insistence of Senator Alton Turner of Crenshaw, the bill was recalled to the Health Committee to be amended to provide that optometric services be included in the initial implementation of Title XIX. Later the same afternoon, Commissioner Ruben King contacted Mr. Ingram of MASA to state that he had changed his position in opposing the change in state agency designation, and was recommending to Governor Lurleen Wallace that she designate the Board of Health by Executive Order to be single state agency. He indicated that he had made this recommendation to avoid a legislative fight which would damage both his department and the Department of Public Health.

He said that his recommendation included two specific provisions—that optometric services be included in the initial implementation, and that S. B. 293 be dropped.

After hurried conferences between members of the Title XIX Ad Hoc Committee and

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Mr. Ingram, Commissioner King was advised on June 29, 1967, that the Medical Association was agreeable to his proposal.

In the meantime, it had been learned that optometric services would be included in the legislation on the insistence of Senator Turner, and that these same services would also be provided if Title XIX remained with Pensions and Security. It had also been learned that the Governor's office demanded that optometrists' services be included as a part of the program and it was for this reason that the MASA representatives accepted the compromise.

On June 30, 1967, Governor Lurleen B. Wallace signed Executive Order No. 8 designating the State Board of Health as the single state agency to administer Title XIX.

The Ad Hoc Committee is pleased to render this report. The achievement of the goal with which the committee was charged was accomplished only with the help and splendid co-operation of members of the Central Office Staff, consultation with our fine legal counsel, and advice and inspiration by other members of the Board of Censors.

It is obvious to all that the State Board of Health now has been charged with the tremendous responsibility of setting up a new state health-care program of immense proportions.

As stated, this program has been estimated to cover 40 per cent of the medical practice in Alabama today. Implementation of such a program will require that the Board of Health formulate plans following certain guidelines established by the federal act and this plan must be submitted to the Department of Health, Education and Welfare for approval. The plan initially must include the five basic services and by agreement with the providers of medical services in Alabama must also include drugs and optometric services.

We then are thinking in terms of $40,000,000 to $50,000,000 a year initially for the operation of the program. This amount will have to be increased as the additional services under the act are included.

What will be the source of funds to operate this vast new health care program? The answer to this is, of course, a combination of state and federal taxes. On the basis of the established formula for matching state and federal funds (17% state, 83% Federal) we will have to seek state funds to the tune of a $10,000,000 annual appropriation to begin with.

We have a little over two years in which to make a proper study, prepare, submit and obtain approval of a plan, set up a statewide organization to administer the program and help find a continuing source of revenue to operate it.

By the governor's decree the doctors of Alabama have been given the responsibility which they requested. It becomes apparent that each and every doctor in Alabama (and we are each individually members of the State Board of Health) is charged with the responsibility of having a fine, workable plan and making it operate to the best advantage of the sick patients of our state.

Dr. Paul W. Burleson, Chairman
Dr. Hugh Gray, Member
Dr. Luther Hill, Member
Dr. Robert Parker, Consultant
Dr. James G. Donald, Consultant
Dr. J. Garber Galbraith, Consultant

"WANTED: Internist to associate with well established internist in Miami, Florida. Terms open. Write Lawson C. Johnson, M. D., 3298 Mary Street, Miami, Florida 33133.

Recommendations from the Conference on Emergency Medical Service

Leon C. Hamrick, M. D.

Fairfield, Alabama

Dr. Leon C. Hamrick was designated to represent the Medical Association of the State of Alabama at the meeting in Chicago on Emergency Medical Service sponsored by the AMA.

Dr. Hamrick is a member of the Alabama Hospital-Medical Council. The following is his report to the Association.

In the May, 1967 issue of the Journal of the State Medical Association, a preliminary report on the American Medical Association Conference on Emergency Medical Service was given. The following are the final recommendations from this conference. While some of these recommendations on the surface may seem to be Utopian, they nevertheless offer certain standards in emergency medical services that we in organized medicine must strive to achieve. In doing so, as indicated in the recommendations, response must come from all levels—national, state and local.

General Recommendations

Community Action:

1. Each state through its metropolitan and county medical societies, alone, or in concert with neighboring societies, should develop Emergency Medical Services Committees, with appropriate consultation of allied health professionals for emergency service planning. This planning should take cognizance of the local emergency needs, the realities of available manpower and develop an action program; an EMS committee of the state medical society should be comprised of appropriate medical and paramedical personnel, and this committee should be charged with the function of formulating recommendations for planning and development of emergency medical services on a state-wide basis; and, that each local or county medical society or voluntary planning agency should survey the existing and future emergency care facilities, and coordinate their requirements with paramedical interests involved in their community. In this way, a comprehensive plan can evolve, representing the total need at a state level for consideration by the state representative designated pursuant to the Federal Highway Safety Act of 1966 and of the state comprehensive health facility planning agency.

2. Each community, through its local medical society, should appoint an emergency medical services council consisting of representatives of medicine, hospitals, ambulance services, government, fire and police and any other agencies involved in planning, coordination, implementation and review of an emergency medical care system. The emergency care system shall include:

a. First Aid and Rescue

b. Transportation

c. Communications

d. Emergency Facilities—Staffing and Patient Management.

Education and Training:

1. Medical students as part of their curriculum in preventive medicine and public health, specifically, should receive instruction in the organization and delivery of emergency medical services in both rural and urban communities. Further medical schools should be urged to give serious consideration to incorporating specific instruction in first aid during the early years of medical school.

2. The "Essentials of an Internship" should be reviewed urging they be amended to include at least a 30-day continuous and extensive experience in emergency departments, with a satisfactory education program augmenting the curriculum of a medical school in relation to community services, with a program of teaching first aid to hos-

pital employees and with an organized lecture series on emergency medical care and services.

3. Continuing education of emergency care should be discharged through the following mechanism:

a. Organization of an emergency department within a hospital for the purpose of an on-going clinical review of activities and development of an in-hospital educational program.

b. State and local medical societies should establish committees on emergency medical care to provide medical leadership, not only for communication, transportation, evaluation of emergency room facilities and staffing and planning, but also for continuing educational programs.

4. The Committee on Emergency Medical Services should study extensively the problem of recruitment and accreditation of educational models of allied health professionals.

5. All courses given by associations and other societies sponsoring educational programs for allied health professionals should be accredited by the Council on Medical Education of the AMA. Further, certification with appropriate expiration date should be awarded to the trainees. Adequately staffed emergency facilities should include personnel with such certification. When these accreditation and certification mechanisms are established they should become a standard for adequate staffing.

Research:

The National Institutes of Health should consider a new Institute on Emergency Medical Services as a grant mechanism to stimulate research and that the insurance industry be requested to support such research. The Committee on Emergency Medical Services should compile a list of potential sources of support for research in this area and consider developing a funding mechanism for this research through the AMA, other professional and voluntary health agencies and industry.

Financing:

Communities should be made fully aware that adequate emergency medical services requires adequate financing. Obviously, in many areas, it will be necessary to appropriate community funds for this purpose.

National Highway Safety Act:

The National Highway Safety Act, Standard 4.4.11 (Emergency Medical Services) should retain the standard that "the State shall give its State health agency the responsibility and authority necessary to ensure that persons injured in highway accidents in any and all of its jurisdiction receive prompt emergency medical care of a quality equal to the best that can be provided by modern medicine under the range of emergency conditions encountered."

Commissions, Forums, Consultation:

1. A national commission on emergency medical services should be established, composed of members of the AMA, other health associations, safety, fire, police, rescue and communications organizations.

2. Regional forums on all aspects of emergency medical services should be held.

3. At the request of local medical societies and the community, the Committee on Emergency Medical Services should provide consultation teams able to deal with emergency medical care problems and that the availability of these teams should be given widespread publicity to the medical profession.

First Aid and Rescue:

1. All segments of the public should be trained in Red Cross standard first aid, or equivalent.

a. Training should be part of the curriculum of elementary and secondary schools, particularly in Driver's Education programs.

b. First aid training should be encouraged for adult programs.

c. Managament and labor should include

(Continued on Page 342)



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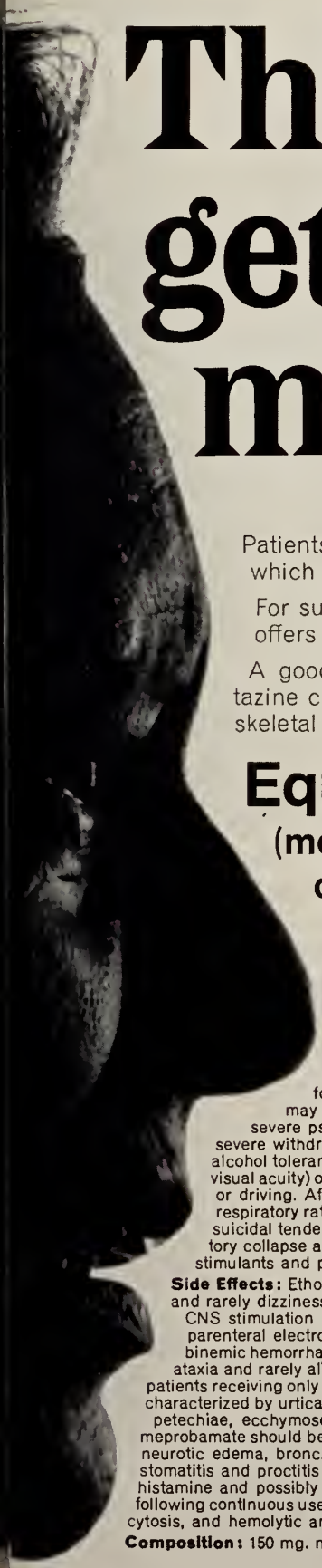
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Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness. Overdosage may result in CNS depression (drowsiness and lightheadedness) or CNS stimulation and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]). Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically such as with epinephrine, antihistamine and possibly hydrocortisone. A few cases of leucopenia, usually transient, have been reported following continuous use. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

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(Continued from Page 338)

Red Cross standards as part of its industrial safety training program.

2. Review of first aid, the fundamentals of emergency medical treatment and the appropriate role of allied health professionals should be an early part of medical, dental and nursing school curricula.

3. Advanced first aid training should be required for all police and fire personnel.

4. All ambulance attendants should be given a minimum of advanced first aid training and additional training in specific emergency medical care. Annual refresher courses should be given ambulance attendants.

5. Local medical societies should offer assistance and advice to local Red Cross chapters, police and fire academies and any other parties involved in teaching first aid.

6. In advance courses, training in cardiopulmonary resuscitation should be given to police, fire, ambulance and allied health professionals.

7. Coordinated effort should be given to up-dating and standardizing existing first aid training manuals.

8. The Emergency Medical Services Committee should consider a large scale television educational program on first aid and accident prevention for the general public.

9. RESCUE

a. General public should be trained in basic rescue principles.

b. A nationally acceptable rescue manual should be developed.

c. Police, fire and ambulance personnel should be given advanced rescue training.

d. There is a need for research into rescue technique.

Communications:

1. A nationwide emergency telephone number should be established which would alert a major emergency medical center.

2. A study should be made of available information on existing emergency communication systems relating to urban and rural areas. Information should include:

a. data on cost

b. distance

c. installation

d. controls

e. equipment

f. periodic investigation

3. Emergency communications shall include but not be limited to the following 24-hour capability:

a. to provide central dispatching

b. to direct 2-way communications between emergency vehicles and emergency facilities

c. to have flexibility to handle emergencies of any magnitude

d. to provide 2-way communication between physicians and emergency facilities

e. to provide 2-way communications with law enforcement agencies and other agencies charged with emergency services

f. to tie in separate and parallel systems into a common system when required

g. to incorporate telemetry, television and other systems when appropriate

h. the Committee on Emergency Medical Services should appoint a representative to work with and advise other organizations and agencies concerned with the problem.

4. A signaling device for automobiles and other vehicles should be developed to indicate the existence of an emergency situation and the need for assistance.

Transportation:

1. The minimum equipment for ambulances as specified by the American College of Surgeons should be accepted with certain additions including antidotes for poison control.

2. Every ambulance should have at least two persons both fully trained available for

on-the-scene care and care enroute to the hospital.

3. Specific courses in defensive driving should be required for all personnel driving emergency vehicles.

4. The Committee on Emergency Medical Services should endorse and promote a model ambulance ordinance.

5. Occupations of ambulance driver and attendant should be developed to a "career status" to enhance recruitment and stability.

6. Ambulances should be called "Medical Response Units" since there could be a variety of vehicles for transporting patients.

7. The Committee on Emergency Medical Services should encourage research in vehicle design and equipment.

8. The Committee on Emergency Medical Service should study the feasibility of helicopter use in transporting the ill and injured both in urban and rural areas.

Emergency Facilities (Staffing and Patient Management)

1. New patterns of medical care especially in the emergency department emphasize the need for the use of triage officers in that area to separate the non-urgent patient from the true emergency. Alternative facilities of care for the non-urgent patient should be provided, whether it be in hospital outpatient clinics, group practice clinics, industrial clinics, private physicians' offices, or other.

2. Hospital emergency departments should be evaluated in terms of its facilities, personnel and services—possibly leading to the concept of emergency department classification or categorization at a community level based on the type of medical care that can be rendered.

3. A committee of the hospital medical staff should be responsible for continuous review of the emergency department services—equipment, facilities, procedures and records—so as to assure optimal medical care.

4. An administrative procedural manual should be written with the Committee on Emergency Medical Services developing guidelines for such a manual and these guidelines should be given wide distribution and implementation.

5. Records of the emergency department should be reviewed by the existing hospital review committees—be it the record committee, the medical audit or other. Emergency department records should become a part of the unit record system of the hospital and evaluated using the same standards employed elsewhere in the hospital.

6. The Committee on Emergency Medical Services should draw up a set of standards for emergency department facilities; initially the Committee should endorse the existing standards of the American College of Surgeons as a baseline for further evaluation. Further, the Committee should establish means and criteria for auditing the facility, personnel and quality of services now available in the United States.

7. The JCAH should place greater emphasis on emergency department standards.

8. The Committee on Emergency Medical Services should establish standards for the transfer of patients between emergency facilities.

9. All medical specialty groups should submit recommendations pertaining to their particular specialties as guidelines to physicians in emergency departments.

10. Every emergency department should have a poison control center or immediate access to one operating under the standards of the American Association of Poison Control Centers.

11. More emphasis should be placed on recognition of psychiatric emergencies and the role of the psychiatrist in the emergency department.

12. Medical professional care should be provided by a member of the organized medical staff or he should be responsible for such care when provided by another physician.

Alabama Department of Public Health

Survey of Therapeutic X-Ray Installations in Alabama

William T. Willis, B. S., M. S., Director

Edward Cowan, B. S., M. P. H., Assistant Director

The Bureau of Environmental Health of the Alabama Department of Public Health has completed a radiological health survey of all known therapeutic X-ray installations within the state. The Jefferson County Health Department has independently surveyed and brought into full compliance the 20 therapeutic units located in Jefferson County and will, therefore, be excluded from all parts of this report.

The Alabama survey consisted of a physical inspection of each X-ray therapy unit to determine compliance with all applicable provisions of the Alabama Regulations for Control of Radiation. The inspections were performed over a period of one year by a technically trained team of one radiation physicist and one registered X-ray technician. The Alabama regulations governing the possession and use of therapeutic X-ray units were unanimously recommended by the Radiation Advisory Board and were subsequently adopted for use by the Alabama State Board of Health. All of the items required by Alabama regulations are identical to the recommended requirements of the National Committee on Radiation Protection, as published in National Bureau of Standards Handbook 76.

From the Division of Radiological Health, Bureau of Environmental Health, Alabama Department of Public Health, Montgomery, Alabama.

Number and Type

Thirty-eight X-ray therapy units were surveyed. The number of units surveyed is shown below according to the type of use and kilovolt potential.

Type of Use	Kilovolt Potential	Number of Units
Superficial therapy		
	125 kvp and below	22
Deep therapy		
	220 kvp and above	16
	Total Units	38

Hospital vs. Private

A distribution tabulation made according to use in hospitals or private practice shows that almost three-fourths of the 38 X-ray therapy units are used in private medical practice:

	In Hospital	In Private Practice
Superficial Units	4	18
Deep Units	7	9
Totals	11	27

Distribution By County

A geographical distribution by county indicates that two-thirds of the 38 therapy

(Continued on Page 349)

Dulcolax®

bisacodyl

Few drugs work as predictably as Dulcolax. You can expect that when your office patient takes Dulcolax at home, it will be as effective as you said it would be. Your patient will be gratified, too.

The reliability of Dulcolax stems from its unique mode of action. The drug works directly on nerve endings in the colonic mucosa, producing normal peristalsis throughout the large intestine. It does not rely on systemic absorption for its effect.

This reliable action provides prompt relief of constipation. It also makes Dulcolax particulary useful for prepping the bowel for special procedures. In short, it makes Dulcolax ideal for your office practice.



Dulcolax acts so surely that the time of evacuation can often be closely predicted. Dulcolax tablets taken at night almost invariably result in a bowel movement soon after waking the following morning. Dulcolax suppositories generally work in 15 to 20 minutes, almost always within the hour.

General Dosage Information: *Adults:* When an ordinary laxative effect is desired, 1 to 3 tablets or 1 suppository usually suffices. Tablets must be swallowed whole, not chewed or crushed, and should not be taken within one hour of antacids or milk. *Children:* 1 or 2 tablets, depending on age and severity of condition. Tablets must not be given to a child too young to swallow them whole. For infants and children under 2 years of age, half a suppository is usually effective. Above this age a whole suppository is usually advisable. Side Effects: As with any laxative, abdominal cramps are occasionally noted, particularly in severely constipated persons. High dosage may result in loose, unformed stools. Contraindication: Contraindicated only in acute surgical abdomen. Availability: Tablets (5 mg.) and suppositories (10 mg.). By prescription or recommendation.

Under license from Boehringer Ingelheim G.m.b.H.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation, Ardsley, N.Y.

You may be prescribing Hygroton®, chlorthalidone

You usually prescribe one tablet daily, but every once in a while you like to cut the dosage. So instead of giving the 100 mg. tablet every other day or breaking it in half, why not prescribe the new half-strength tablet every day?

See next page for a brief precautionary statement.

out you don't know the half of it.

New Hygroton 50 mg.

For a clinical supply, please mail us this coupon with one of your prescription blanks.

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York 10502

DEPT. 7

Broad scope diuretic

Hygroton
chlorthalidone

Hygroton is indicated in certain conditions where the newer nonthiazide diuretics are not recommended, e.g. hypertension, edema of pregnancy, premenstrual edema, edema in obesity states, steroid edema.

However, the newer diuretics are probably superior to Hygroton in acute pulmonary edema and the nephrotic syndrome or any condition where the glomerular filtration rate is significantly low.

Geigy

Indications

Hypertension

Such as hypertension with or without congestive failure, where Hygroton can be used alone or in conjunction with other agents
(*Precaution:* Antihypertensive therapy with Hygroton should always be initiated cautiously in post-sympathectomy patients and in patients receiving ganglionic blocking agents or other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Barbiturates, narcotics or alcohol may potentiate hypotension.)

Edema

Such as edema associated with:
congestive heart failure
or renal disease
(*Precaution:* Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises.)
or hepatic cirrhosis
(Hypoproteinemia, if present, must be corrected concomitantly. *Precaution:* Take special care: discontinue if liver dysfunction is aggravated, since hepatic coma may be precipitated.)
or steroid administration
or obesity
or the premenstrual syndrome
or pregnancy, including toxemia
(*Warning:* Use with caution in pregnant patients, since the drug may cross the placental barrier and adverse reactions which may occur in the adult, e.g. thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc., are potential problems in the newborn.)

Contraindications

Severe Renal or Hepatic Disease and Demonstrated Hypersensitivity

Other general warnings, precautions and adverse reactions

Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur.

Precautions: Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Hygroton should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.

Take special care in severe ischemi heart disease and in patients receivi corticosteroids, ACTH, or digitalis. Salt restriction is not recommended

Adverse reactions: Nausea, gastric irritation, vomiting, anorexia, constipation and cramping, dizziness, wea ness, restlessness, hyperglycemia, hyperuricemia, headache, muscle cramps, orthostatic hypotension, aplastic anemia, leukopenia, thromb cytopenia, agranulocytosis, dysuria, impotence, transient myopia, skin rashes, urticaria, purpura, necrotizir angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolong administration. Other reactions reported with this class of compoun include: jaundice, xanthopsia, paresthesia, and photosensitization.

Average Dosage: 50-100 mg. with breakfast daily.

Availability: White, single-scored tablets of 100 mg. and aqua tablets o 50 mg. in bottles of 100 and 1000.

Please see full Prescribing Informati

Geigy Pharmaceuticals
Division of Geigy Chemical Corporati
Ardsley, New York 10502

(Continued from Page 344)

units are located in four counties with remaining units being distributed in eight other counties. Excluding Jefferson County, therapeutic X-ray units are available in 12 of the remaining 66 counties, leaving 54 counties without an X-ray therapy unit. The distribution of units by county is as follows:

County	Number of Units
Montgomery	10
Mobile	6
Etowah	5
Tuscaloosa	3
Chambers	2
Morgan	2
Houston	2
Lauderdale	2
Calhoun	2
Madison	2
Randolph	1
Dallas	1
Total	38

Workload

Workloads of superficial X-ray therapy units were found to be very low. As a basis of comparison, the National Bureau of Standards Handbook 76 assumes a workload of 4,000 milliampere-minutes per week as the base for shielding computations. Using this figure as a guide, superficial units in Alabama have exceedingly low workloads: three-fourths of the units have a workload of only one-fourth the 4,000 milliampere-minutes per week used in Handbook 76. The low workload of all units is shown by the following:

Milliampere-Minutes Per Week	Number of Units
0- 500	8
500-1,000	5
1,000-1,500	2
1,500-Above	3
Unknown	4

Workloads for deep X-ray therapy units were also found to be low. Again, as a basis of comparison, the National Bureau of Standards Handbook 76 assumes a workload of 40,000 milliampere-minutes per week as the base for shielding computations. Using this figure as a guide, deep therapy units in Alabama have relatively lower workloads than the superficial units. To illustrate this workload, over one-half of the deep therapy units have a workload of less than three per cent of the 40,000 milliampere-minutes per week used in Handbook 76. The following information shows that a large majority of the units has a very small workload.

Milliampere-Minutes Per Week	Number of Units
0-1,000	8
1,000-2,000	4
2,000-Above	3
Unknown	1

Compliance

All 38 therapy units were found to be in full compliance with 65 per cent of the required items. Almost all items found to be in full compliance were requirements related to physical aspects of therapy units. This fact can be seen more clearly from the following data which shows the specific items inspected and the per cent of X-ray therapy units in compliance with each item:

Inspected Item	Per Cent Units In Compliance
1. Therapeutic Tube Housing	100
2. Filters Secure in Place	100
3. Tube Alignment	100
4. Tube Housing Stability	100
5. Timer Provided	100
6. Timer Terminates Exposure	100
7. Tube "on" Indicator	100
8. Adequate Operator Protection	100
9. Patient Observation	100

Noncompliance

Seventy per cent of the 38 therapy units was found to be in noncompliance with one or more of five required items. The following data pinpoints five specific items of non-

compliance and the per cent of X-ray therapy units in noncompliance with each item:

Inspected Item	Per Cent Units In Noncompliance
1. Interlocks Provided	63
2. Interlocks Functioning	8
3. Shielding Adequate	11
4. Radiation Caution Signs	84
5. Film Badges Provided	37

A brief explanation of each of the items of noncompliance follows:

1. Interlocks: All therapy X-ray units should be provided with interlocks so that when any door of the treatment room is opened either the unit shuts off automatically or the radiation level within the room is reduced to a level of not more than 2 milliroentgens per hour. It is important to note that only units operating at 60 kvp and below are excepted from this requirement. This means that superficial therapy units operating above 60 kvp are governed by this requirement as well as deep therapy units. Seventy-seven per cent of the superficial units and 45 per cent of the deep units were found to be in noncompliance with this item.

2. Interlocks Functioning Properly: This item relates to installations that already have interlocks and states that the interlocks should be functioning properly in order to accomplish the purpose of interlocks. Fourteen installations had interlocks and only one of these was found to be in noncompliance.

3. Shielding Adequacy: A requirement that all wall, floor, and ceiling areas that can be struck by the primary beam, plus a border of one foot, be provided with primary protective barriers. All other wall, floor, and ceiling areas should be provided with secondary barriers. Both primary and secondary protective barriers must be sufficient to reduce the incident radiation to acceptable levels in unrestricted areas. Direct radiation measurements were taken during the survey to determine the adequacy of shielding. Using these actual radiation measurements, shielding computations determined that only four of the 38 units were at installations with insufficient shielding.

4. Radiation Caution Sign: Each X-ray installation should be conspicuously posted with a warning sign which cautions that the treatment area is either a radiation area or high radiation area. Eighty-four per cent of all therapy units were found to be in noncompliance with this requirement. The item presents little difficulty as it can be corrected more easily than any of the other items of noncompliance.

5. Film Badges Provided. Every person who reasonably could be expected to receive 25 milliroentgens per week should wear a personnel monitoring device. Thirty-seven per cent of all therapy units were operated by persons who did not wear a film badge and who, consequently, could not determine their occupational radiation exposure. Fortunately, this requirement also is relatively easy to correct.

Noncompliance Items Corrected

Subsequent to inspection of each therapy unit, a letter from the state health officer advised all installations of inspection results. If an installation was found to be in noncompliance, the letter pointed out the deficiency for each item of noncompliance and made recommendations for compliance. Whenever the items of noncompliance had been corrected, the Alabama Department of Public Health was informed; a re-inspection was conducted to verify each correction. The following statistics show that almost all therapy units have been corrected in accordance with recommendations.

	Per Cent Units in Full Compliance
At time of Inspection	29%
Twelve months after inspection	87%

Summary Comments

1. All known X-ray therapy units in the state have been inspected for compliance with Alabama Regulations for Control of Radiation.

2. The entire group of 38 therapy units was in full compliance with nine of 14 inspection requirements.

3. All of the 38 therapy units were in full compliance with every requirement that pertained directly to the physical aspects of the units.

4. Only four of the 38 units were located at installations with insufficient shielding.

5. The requirement of shielding presented less of a problem than was anticipated.

6. The extremely low workload of most therapy units is largely responsible for the high degree of compliance with the shielding requirement.

7. Interlocks for superficial therapy units generated considerable constructive criticism concerning the need for this requirement.

8. The reluctance of physicians to accept the requirement of interlocks for superficial therapy units as necessary or useful indicates that rationale for this item should be reevaluated.

9. Except for difficulties regarding required interlocks for superficial units, the inspection of all X-ray therapy installations was reasonably well received by physicians.

10. Most of the 38 therapeutic X-ray units are now in full compliance with all requirements.

INTERNIST WANTED

Associate for a three-man partnership. Board qualified or certified. Location in a very actively growing part of the Metropolitan Atlanta, Georgia area. Full partnership possible in twenty-four months. Reply Post Office Box 506, Marietta, Georgia.

BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

May 1967

Live Births / Deaths / Causes of Death	Number Registered During May 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	4,763	3,249	1,514	15.7	16.5	18.4
Deaths	2,723	1,816	907	9.0	9.5	9.0
Fetal Deaths	108	49	59	22.2	21.0	23.8
Infant Deaths—						
under one month	103	59	44	21.6	17.4	19.8
under one year	135	73	62	28.3	26.8	31.2
Maternal Deaths	2		2	4.1	7.9	1.8
Causes of Death						
Tuberculosis, 001-019	22	6	16	7.3	7.4	6.1
Syphilis, 020-029	2	1	1	0.7	1.0	1.4
Dysentery, 045-048						0.3
Diphtheria, 055						
Whooping cough, 056						0.3
Meningococcal infections, 057	2		2	0.7	0.3	0.7
Poliomyelitis, 080,081						
Measles, 085	1	1		0.3		0.7
Malignant neoplasms, 140-205	415	298	117	137.1	135.1	111.6
Diabetes mellitus, 260	51	35	16	16.8	15.7	14.9
Pellagra, 281						
Vascular lesions of central nervous system, 330-334	361	214	147	119.3	138.1	129.6
Rheumatic fever, 400-402					0.3	0.7
Diseases of the heart, 410-443	955	685	270	315.6	323.3	301.1
Hypertension with heart disease, 440-443	110	48	62	36.4	34.8	43.6
Diseases of the arteries, 450-456	61	43	18	20.2	21.1	20.3
Influenza, 480-483	3	1	2	1.0	3.0	0.7
Pneumonia, all forms, 490-493	59	42	17	19.5	26.7	30.4
Bronchitis, 500-502	2	2		0.7	2.7	1.0
Appendicitis, 550-553					2.0	1.0
Intestinal obstruction and hernia, 560, 561, 570	11	9	2	3.6	5.0	5.1
Gastro-enteritis and colitis, under 2, 571.0, 764	3		3	1.0	2.3	2.4
Cirrhosis of liver, 581	24	19	5	7.9	6.4	5.8
Diseases of pregnancy and childbirth, 640-689	2		2	4.1	7.9	1.8
Congenital malformations, 750-759	28	22	6	5.9	4.7	4.0
Immaturity at birth, 774-776	32	15	17	6.7	5.5	5.5
Accidents, total, 800-962	204	147	57	67.4	65.5	67.3
Motor vehicle accidents, 810-835, 960	91	71	20	30.1	31.1	36.2
All other defined causes	337	209	128	111.4	125.0	130.2
Ill-defined and unknown causes, 780-793, 795	148	67	81	48.9	53.5	50.7

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph. D., Director
July 1967

Examination for intestinal parasites	1,748
Examination for malaria	4
Salmonella & Shigella (blood-feces-urine-food)	330
Examination for tubercle bacilli	3,955
Examination for gonococci	2,295
Serological test for Syphilis	28,288
FTA	82
Darkfield	4
Brucella	1
General Bacteriology (cultures for isolation and confirmation)	38
Staphylococcus (cultures for isolation and confirmation)	164
Examinations for diphtheria	5
Streptococci examinations	1,873
Mycology	14
Agglutinations	16
Vincent's infection	2
Complement fixation test	158
Test for Phenylketonuria (PKU)	6,093
Cytology	903
Water examinations	3,798
Milk and dairy products examinations	4,669
Sea food examinations	94
Examination for Negri bodies (smears & animal inoculation)	406
Virology	2
Rh Factor bloods	660
Miscellaneous	685
TOTAL	56,287

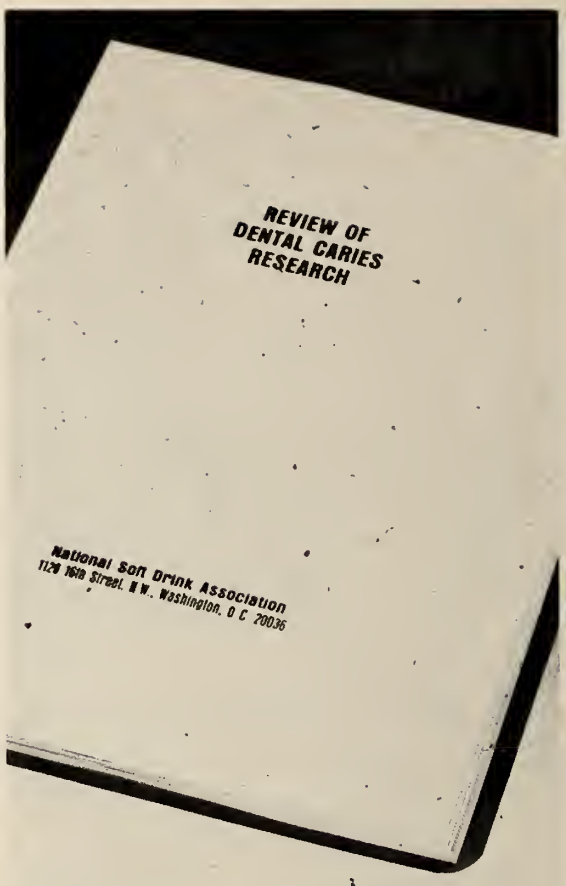
BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director
Current Morbidity Statistics
1967

	June	July	*E. E. July
Tuberculosis	100	154	142
Syphilis	121	74	145
Gonorrhea	519	491	368
Chancroid	2	1	2
Typhoid fever	2	2	1
Undulant fever	2	0	0
Amebic dysentery	1	1	4
Scarlet fever & strep. throat	369	431	37
Diphtheria	0	0	1
Whooping cough	5	13	11
Meningitis	9	11	3
Tularemia	0	0	0
Tetanus	2	1	2
Poliomyelitis	0	0	2
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	84	28	89
Chickenpox	23	13	16
Mumps	96	30	22
Infectious hepatitis	11	21	53
Typhus fever	0	1	0
Malaria	0	0	0
Cancer	485	485	655
Pellagra	0	1	1
Rheumatic fever	17	16	15
Rheumatic heart	21	18	25
Influenza	35	28	19
Pneumonia	233	183	160
Rabies—Human cases	0	0	0
Pos. animal heads	3	3	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.



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A clear, concise compendium of research into the causes of dental decay. This report summarizes and quotes from scientific studies including the latest research with antibiotics and radioisotopes.
The extensive bibliography is itself a valuable reference guide.
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Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —PEN•VEE® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections susceptible to oral penicillin G: prophylaxis and treatment of streptococcal infections; treatment of pneumococcal, gonococcal, and susceptible staphylococcal infections; prophylaxis of rheumatic fever in patients with a previous history of the disease.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.

Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.

Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.

Adverse Reactions (Penicillin has significant index of sensitization): Skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").

Composition: Tablets—125 mg. (200,000 units), 250 mg. (400,000 units), 500 mg. (800,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

ORAL **PEN • VEE® K**

(potassium phenoxymethyl penicillin) Wyeth®

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Administrative position—parttime

Age 70; seeking location in Montgomery area. Available immediately. LW-51-A

Anesthesiology—

Age 29; Univ. of Tennessee 1961; Available October 1967. LW-52

General Practice—

Age 28; Medical College of Alabama 1966; seeking practice in town of less than 14,000 population to fulfill scholarship requirements. Available 1968. LW-53

Age 28; Univ. of Missouri 1965; seeking group or associate practice. Available July 1968. LW-54

Age 43; Medical College of Alabama 1967; seeking associate practice in town of 12,000 plus population in central or south Alabama. Available July 1968. LW-55

Age 36; married; Univ. of Louisville 1965; seeking group, industrial, associate, or biomedical electronics practice. Available immediately. LW-56

Age 34; Univ. of Tennessee 1964; seeking solo, group, or associate practice. Available immediately. LW-57

Age 27; Baylor University 1966; Available immediately. LW-58

Age 30; married; Medical College of Virginia 1963; completing military duty; Available immediately. LW-59

Age 29; Ohio State University 1964; Available September 1967. LW-60

Age 31; Medical College of Alabama 1962; seeking associate practice. Available immediately. LW-61-62

Institutional—School Health, Public Health

Age 52; Jefferson Medical College 1942; Certitified American Board; Available October 1967. LW-63

Age 55; Queen's University, Ontario 1938; Available immediately. LW-64

Internal Medicine—

Age 52; Washington Univ., St. Louis 1941; Certified American Board; seeking industrial, associate or institutional practice. Available late 1967 or early 1968. LW-65

Age 33; Ohio State Medical School 1963; Board eligible; seeking group practice—(internal medicine with hematology). Available July 1968. LW-66

Age 32; Georgetown Medical School 1961; National Board; Board eligible; seeking group, industrial or associate practice—(internal medicine with gastroenterology). Available April 1968. LW-67

Obstetrics-Gynecology—

Age 35; Medical College of Alabama 1957; seeking associate practice in town of 10,000 plus population. Available July 1968. LW-68

Age 32; Univ. of Illinois 1964; National Board; seeking associate practice. Available July 1968. LW-69

Ophthalmology—

Age 31; Univ. of Cincinnati 1962; Board eligible; seeking group or associate practice. Available May 1968. LW-70

Age 28; Univ. of Nebraska 1963; Board eligible; seeking solo, group, industrial, associate or institutional practice. Available September 1967. LW-71

Age 30; Vanderbilt Univ. 1961; seeking solo, group, or associate practice. Available immediately. LW-72

Pathology—

Age 31; Louisiana State Univ. 1961; Certified American Board; seeking solo, or associate practice. Available July 1968. LW-73

Age 33; Univ. of Tennessee 1958; Board eligible; seeking associate practice. Available January 1968. LW-74

Pediatrics—

Age 36; Medical College of Alabama 1957; Board eligible; seeking group or associate practice. Available immediately. LW-75

Age 33; Univ. of Pittsburgh 1960; Board eligible; seeking associate practice. Available July 1967. LW-76

Age 61; Columbia Medical School 1933; Certified American Board; seeking group, industrial, associate or institutional practice. Available immediately. LW-77

Pediatric Cardiology—

Age 40; Univ. of Cincinnati 1956; Certified American Board; seeking practice in south Alabama. Available January 1968. LW-78

Psychiatry—

Age 31; Univ. of Wisconsin 1963; seeking solo, group, or associate practice. Available July 1968. LW-79

LOCATIONS WANTED (Continued)

Surgeon

Age 33; Vanderbilt 1963; completing general surgical residency; National Board; Board eligible; seeking group or associate practice, preferably in city of 25,000 plus population in northern section of state. Available July 1968. LW-80

Physicians Wanted

Anesthesiologist—

For 250-bed hospital in North Alabama seeking anesthesiologist to head the department. PW-38

General Practitioners—

For town in south Alabama with 20,000 trade area, within 40 miles of Gulf beaches and large city. Excellent hunting and fishing. Numerous industries offering stable employment for area. Furnished office available rent free. Hospital presently engaged in complete remodeling and expansion. Excellent cooperation between hospital and medical staff. PW-39

For town of 2,000 population in trade area of 5,000 located in south Alabama, within 24 miles of large city of 37,000 population. Nearest hospital (50 beds) is 12 miles away. One physician presently in practice in town. Office space available. Military base, farming, and small industries afford resources. Numerous civic clubs; two schools and five churches. PW-40

Opportunity in town of 1,500 population combined with adjoining town of 1,200 in population center of 14,500, located in central Alabama, approximately halfway between Birmingham and Montgomery. Clinic available rent free. Hill-Burton hospital-nursing home is located within a distance of 12 miles. Expanding industrial and agricultural area. Recreational advantages for water sports nearby. Churches and schools. A state college is also located nearby. PW-41

Opportunity in port town of 1,000 plus population in population center of 10,000 located in Southeast Alabama. Clinic available. Hospital located less than 20 miles away. Recreational advantages for water sports. Expanding industrial and farming area. Churches and schools. PW-42

General practitioners—

For town of approximately 1,000 population in population center of approximately 10,000, located in Southwest Alabama within 90 miles of the Gulf Coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-43

PHYSICIANS WANTED (Continued)

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-44

Opportunity in city of 25,000 population located in Southeast Alabama within less than 100 miles of the Gulf Coast. Offices available in a medical center complex adjacent to large hospital. PW-45

For town in Southwest Alabama, approximately 1,000 population in trade area of approximately 5,000 population, within 60 miles of large city of 35,000. Nearest hospital is located 18 miles away. Arrangements available for office space. Small industries and agriculture. Civic clubs and golf course nearby. Churches and school. PW-46

For associate practice in city of 6,000 population in population center of over 10,000 located in East-central Alabama. PW-47

For solo practice in county clinic located in East-central Alabama. Office, equipment and housing available. 70-bed Hill-Burton hospital and 22-bed nursing home. PW-48

For group practice in town of 7,500 population in North Alabama. PW-49

For associate practice in city of 35,000 population located in Northeast Alabama. Interest in surgery is also desirable. PW-50

General Practitioner-Obstetrician—

Opportunity for physician in city of 15,000-20,000 population located in Southeast Alabama in college town. Interest in surgery is also desirable. PW-51

General Practitioner or Internist—

For partnership or associate. Excellent location. fully equipped office in city of 12,000 population. 130-bed accredited hospital. Possibility for larger clinic group. PW-52

Surgeon—

Board qualified or Board certified surgeon for partnership in 1968 in city of approximately 40,000 population. PW-53

For partnership with a Board surgeon and Fellow, ACS, located in city of 30,000 population in North Alabama. PW-54

Student Health—

New 75-bed facility to be occupied in late 1968. Present staff of seven full time physicians. Seeking one additional physician for fall 1967 and two (one as a replacement) for fall 1968. Salary negotiable. Appointments are full time with regular University benefits. PW-55

Full time salaried position of assistant director on staff of four. 65-bed well equipped infirmary with adequate office space. Excellent laboratory and X-ray facilities. Liberal fringe benefits. PW-56



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The House Ways and Means Committee approved a social security bill including some medicare and medicaid changes sought by the medical profession and excluding others opposed by the American Medical Association.

The committee also discarded an Administration proposal to extend medicare coverage to disabled workers under age 65, as well as an Administration-opposed proposal that would have put federal government workers under medicare. The actions were part of a general scaling down of the increases in social security benefits sought by President Johnson.

A committee bill (H. R. 12080) included these changes in the present law:

—Allow medicare patients, or doctors, to collect from the government on the basis of an itemized bill. Present law requires a bill receipted as having been paid to the doctor if the doctor doesn't accept an assignment. (AMA-supported)

—Authorize states to allow physicians to bill medicaid patients directly if they are not also cash assistance recipients. (AMA-supported)

—Eliminate the requirement for certification by a doctor before admission of a medicare patient to a hospital. (AMA-supported)

—Shift coverage on medicare outpatient diagnostic services provided by hospitals from Plan A to Plan B. (AMA-supported)

—Put limits on federal contributions to states for medicaid programs. Beginning July 1, 1968, the federal ceiling on eligibility would be 150 per cent of the annual income set by a state for welfare eligibility. It would drop to 140 per cent on January 1, 1969, and to 133-1/3 per cent January 1, 1970.

—Require states to give birth control information to welfare patients who request it.

In addition to opposing extension of medicare to disabled workers under age 65, the AMA opposed creation of a new Plan C under medicare and a provision for chiropractor's services—both of which were rejected by the committee.

The House group slashed back the President's proposal for a 15 per cent minimum monthly social security increase in cash benefits to 12.5 per cent. The administration proposal for an increase in social security taxes also was scaled down to 4.4 per cent, on the employer and on the employee, of the first $7,600 in wages starting in 1968. The taxable wage base now is $6,600, and the tax rate is 4.4 per cent. The Administration had asked that the base be increased to $7,800 next year, and in later stages, to $10,800.

* * *

The American Medical Association and the Kansas City (Mo.) Community Blood Bank asked Congress to exempt community blood banks from the anti-trust laws.

Representatives of the groups testified at a senate judiciary subcommittee hearing in support of S. 1945 which would amend the anti-trust laws to provide that a nonprofit blood or tissue bank, or hospital, or physician who refuses or who joins together with others in refusing to obtain or to accept delivery of blood, blood plasma, other tissue or organs from any other blood or tissue bank would not be in restraint of trade. The interstate shipment of blood, blood plasma, other tissue or organs also would not be deemed to constitute trade or commerce in commodities.

The legislation was introduced after the Federal Trade Commission ruled that a

group of Kansas City pathologists, hospitals and blood bank officials had combined illegally to restrain commerce in human whole blood. An appeal against the ruling is pending in the Federal Eighth Circuit Court of Appeals in St. Louis, Missouri.

Dr. Robert S. Mosser, President of the Kansas City Blood Bank, said it was inconceivable that groups of physicians may not have the right to discuss shortcomings of medical practice, including the use of blood and its derivatives.

Dr. Frank C. Coleman, Tampa, Florida, pathologist, presented the views of the AMA:

"Because serious health hazards may arise through transfusion by virtue of the medical condition of the donor, the care necessary in the selection of blood donors by blood banking facilities cannot be over-emphasized. Serious consequences may arise unless the blood is properly drawn, processed, stored, and distributed. And it is imperative that these procedures be performed under high standards, under the guidance and control of proper medical supervision."

Dr. Coleman pointed out that the AMA in 1963 adopted a statement "to the effect that the transfusion of blood constitutes the transplant of human tissue, and that physicians responsible for transfusions render a medical service to the patient."

"The House of Delegates stated that the selection of the donor, the drawing of the blood, its processing and storage, the delivery, the typing and crossmatching, and the administration of the transfusion and the evaluation of its effects, were functions intimately involving medical judgment and requiring medical supervision," Dr. Coleman said.

"The American Medical Association believes that the health interests of the community are best served when the supply of blood is maintained on a replacement basis. We feel that the patient, the donor, and the public benefit when blood is replaced by the patient, his family, or his friends in the various organizations of which he is a member.

"Since the consequences of any abuses can be tragic, it is our opinion that the physician and hospital must have available to them every means of insuring the safety of the patient."

* * *

The American Medical Association and the Missouri State Medical Association argued against an Internal Revenue Service proposal to tax the advertising revenues of publications of non-profit associations.

Representatives of other affected, non-medical organizations also opposed the proposed tax at an IRS hearing.

Bernard D. Hirsh, director of the AMA's Law Division, pointed out that the pertinent law on unrelated income had been on the books for 17 years without any such tax being proposed by the government.

"The proposed regulations go beyond the law, first in arbitrarily classifying all advertising contained in trade and professional journals as unrelated, and secondly, in treating income derived from this source as if it were income from a business capable of separate existence," Hirsh said.

Dr. Hector W. Benoit, Jr., MSMA President, noted that one of the states purposes of the proposal was to eliminate alleged unfair competition in advertising between non-profit association journals and profit magazines.

"If you have the stomach to read many of these advertisements (in Missouri Medicine), you will find they are directed purely to a professional audience and would be unlikely to enhance the public appeal to such lay publications as Atlantic Monthly, Look, etc . . .," Dr. Benoit said.

He also noted that medical societies furnish many voluntary services for their communities, as well as provide physicians with much of their latest information on medical advances.

"Without the help of the advertising income from these publications and the income of exhibitors at these medical meet-

ings, many of these sources of educational information would be severely restricted, even indeed in many instances, eliminated entirely," he said.

* * *

The Public Health Service reported that, according to Hill-Burton state agencies, 3,327 of the nation's 6,716 general hospitals need modernization or replacement of facilities for 272,000 of their beds. Of the total, replacements are required for 70,000.

But Dr. William Stewart, PHS Surgeon General, said that replacement or modernization was not the complete answer.

"Development of alternative care facilities, earlier preventive treatment, increased and more readily available out-patient services—all of these may offer a better solution to a given hospital's problem," he said.

Dr. Stewart said 143 hospitals in the survey were critically overcrowded with average annual occupancy rates of 90 per cent or more of reasonable capacity. Another 1,289 hospitals had occupancy rates of between 80 and 90 per cent, "substantially above the national average."

"Any hospital experiencing an average annual occupancy rate of 90 per cent or more exceeds the safe limit," he said.



"Not in there, Blanch, that's an appendectomy!"

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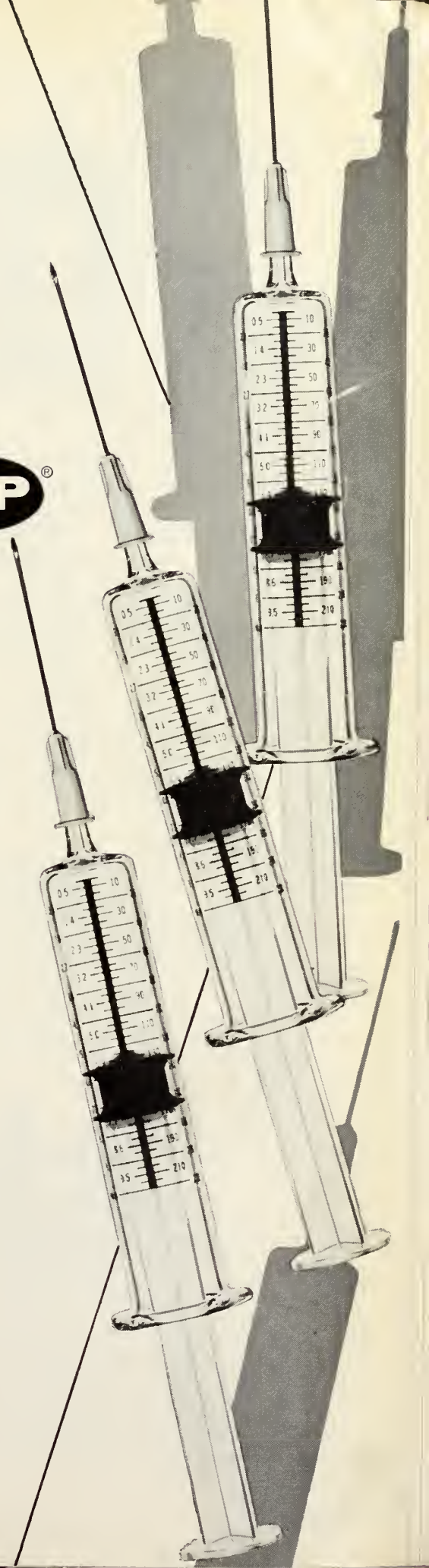


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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • October, 1967 • No. 4

Office of Publication
19 So. Jackson St. Montgomery, Ala. 36104
Subscription Price $5.00 Per Year
$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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President's Page

Government Health Programs



Dr. E. Bryce Robinson, Jr.

The question is not whether physicians of Alabama can afford the time from their busy practices to learn something about the many Federal-State health care programs recently enacted; the question is whether physicians can afford to lose this opportunity to shape the course of these programs for the protection of this and future generations of practitioners.

By the time these words appear in print there is a possibility that a series of regional medical society meetings will have been completed. The purpose of these regional meetings was to bring into Alabama the foremost experts on the major Federal-State health care programs to explain to physicians and other providers of services, as well as to the lay public, the objectives and mechanics of the programs. It is hoped that an overwhelming majority of the medical fraternity will have availed themselves of the opportunity to become knowledgeable in these complex subjects.

It has been often stated that unless physicians assume leadership in the planning and execution of Federal-State health programs, some other groups or organizations will move into the vacuum. Every law recently enacted to extend health services to the public contains a section requiring creation of advisory committees composed of providers and consumers. Obviously, this means that the Federal and State governments are desirous of receiving the advice and assistance of those professional people most capable of determining the scope and quality of services to be rendered. If they fail to receive this counsel, it is natural that they will turn to other sources.

Good Health care begins at the family level and thus the individual physician is best qualified to speak on behalf of his patients. The time has come for him to do so, acting through the mechanism of his county medical society which is closest to the problem and most likely to supply the solution.

Let us, for an instant, look at just a few of the programs which are now being developed and see for ourselves how they eventually will provide total and comprehensive medical care at Government expense to a majority of the citizens of Alabama. First, there is Public Law 89-97, Titles XVIII and XIX (as amended in 1967), with which we are most familiar. In a nutshell, Title XVIII provides physician services, hospitalization and other medical care to all over-65 persons whether they are financially needy or not. Title XIX, when implemented, will extend these services to all of our needy citizens. By 1975 Titles XVIII and XIX will offer total comprehensive health care to all indigent, disabled and blind persons at all age levels.

What is meant by comprehensive care? A clue to the answer to this question can be obtained from the program now being developed in Lowndes County, Alabama, by the Office of Economic Opportunity. It is anticipated that the Federal Government will funnel 1.5 million dollars in non-match-

ing funds into Lowndes County annually to provide total health care for between 60 and 80 per cent of the citizens.

Sixteen centers will be established to provide everything from social services to the patients to rabies shots for their dogs.

There will be money for training medical and paramedical personnel, even veterinarians aides. If there are not enough physicians or nurses or laboratory technicians in the county to handle the patient load, they will be brought in from the Medical Center in Birmingham and other areas. The help rendered to the population will include, according to one newspaper report, improvement of the quality of poultry and livestock so that the population can have a higher quality of protein in their diets.

The Heart Disease, Cancer and Stroke Amendments authorize grants to assist in the planning, establishment and operation of regional medical programs to facilitate the wider availability of the latest advances in care of patients afflicted with heart disease, cancer and stroke, and related diseases. U. S. Public Health Service expects these two laws to serve the common goal of improved health care for the American people along with other Public Health Service and non-Public Health Service grant programs such as community mental health centers, migrant health programs, air pollution control, programs for the training of health manpower, the neighborhood health centers under the Office of Economic Opportunity, the medical programs of the Children's Bureau, and State and local health programs.

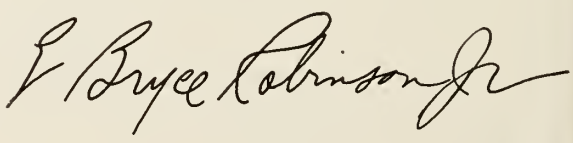
Now when we recognize the fact that a large per cent of those afflicted with heart disease, cancer and stroke will be elderly persons already entitled to public assistance under P. L. 89-97, it is apparent that the Federal Government's financial assistance for this particular patient could come from at least four directions.

Still another Federal program, the Appalachia Regional Development Act of 1965, is of interest to Alabama physicians because it presently applies to 33 of the State's 67 counties and includes 2.0 million of the State's 3.3 million population. While the act is designed to do more than render health services to the residents, it does permit establishment of demonstration health projects (even extending across State lines). Each project will offer comprehensive health services for all segments of the population in a designated area.

Section 202-2 of the Appalachian Regional Commission Code includes these essential components in comprehensive health services: health education, personal preventive services, diagnostic and therapeutic services, rehabilitative and restorative services, and community-wide environmental health services. The emphasis will be on continuing care of persons, rather than on episodic treatment of categorical diseases.

The delivery of these services will be so organized as to encourage development of a continuing relationship between the patient, his physician, and the other professional and supporting health personnel concerned with the direct provision of services. To achieve this goal, it will be necessary to encourage the full use of existing resources (including Federal, State, local, voluntary and private), supplemented, when necessary, by coordinated additional public and private resources.

We not only request, but also strongly urge each of you to become thoroughly familiar with each of the programs mentioned above. They are with us! They are not going away! Therefore, medicine must exert responsible leadership and we shudder to think of the alternative if you do not. By all means, when you receive a notice about the regional meetings to be held, you must make every effort to attend.



E. Bryce Robinson, Jr., M. D.
President, The Medical Association of the State of Alabama



"All Registered Nurses are Alike"

It stands to reason. They all go through the same training; they all have to pass the same tests; they all have to measure up to the same standards. Therefore, all registered nurses are alike.

That's nonsense, of course. But it's no more nonsensical than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more demanding. In fact, there are at least *nine specific differences* involving purity, potency and speed of tablet disintegration. These Bayer® standards result in significant product benefits including gentleness to the stomach, and product stability that enables Bayer tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that all aspirin tablets are alike, you can say, with confidence, that it just isn't so.

You might also say that all registered nurses aren't alike, either.



The Woman's Auxiliary

The beautiful Autumn season is here and the month of October is indeed a busy one for the Woman's Auxiliary.

Throughout the Summer months the officers and committee chairmen on all levels —County, State and National—have been busy making plans for the coming year. Now the time has come to put these plans into action and make the dreams become a reality.

The 24th Annual Conference of National Officers, Directors, Chairmen, State Presidents and Presidents-Elect will be held at the Drake Hotel in Chicago, October 8-11. Outstanding speakers will include F. J. L. Blasingame, M. D., Executive Vice-President, AMA; Roy E. Ritts, M. D., Director, AMA Medical Research; Dwight Wilbur, M. D., President-Elect, AMA; Representative Robert H. Michel (R), 18th Congressional District, Illinois; Paul Boesch, author, poet and sports commentator; Hans Odegaard, Lecturer from Denmark; Ernest B. Howard, M. D., Assistant Executive Vice-President, AMA, and James W. Foristel, Legislative Representative, AMA Washington office. Mrs. John M. Chenault, National Bylaws Chairman, Decatur; Mrs. Robert K. Wilson, Sr., President-Elect, Aliceville; Mrs. W. G. Thuss, Sr., Birmingham; and Mrs. James C. Guin, Jr., President, Tuscaloosa, will attend this Conference.

The Southern Regional Workshop, sponsored by the Woman's Auxiliary to AMA, will be held at the Hilton Inn, Atlanta, on October 19-20. At this workshop the National Chairman will meet with the State Chairmen to discuss plans and programs for the coming year. Invited to attend are the following State Committee Chairmen: Mrs. B. H. Johnson, Jr., Bessemer, AMA-ERF; Mrs. W. L. Smith, Montgomery, WAMASA News; Mrs. Gene Qualls, Sheffield, Health Careers; Mrs. Eugene Bradley, Centre, International Health Activities; Mrs. Fred Reynolds, Montgomery, Legislation; and



Mrs. James C. Guin, Jr.

Mrs. Robert K. Wilson, Aliceville, Membership.

This workshop will be followed by four District Workshops in our own State for county officers, committee chairmen and Auxiliary members. The purpose of these workshops is to give the state and county members an opportunity to meet together in an informal atmosphere and discuss the programs of the Auxiliary, and to encourage a better understanding and a closer working relationship between the two groups.

The Northwest District Workshop will be held in Birmingham on October 24. This Workshop is under the direction of Mrs. Gilder Wideman, District Vice-President, and the theme will be "Let George Do It."

The Northeast District Workshop will be at the Reich Hotel in Gadsden on October 26th. Mrs. C. L. Salter, District Vice-President, is the leader and their theme will be "The Spirit of '67."

The Southwest District Workshop, under the direction of Mrs. G. William Wiles, Dis-

trict Vice-President, has been scheduled for October 30th in Mobile.

The Southeast District Workshop will be held in Enterprise on November 3rd. This Workshop will be under the leadership of Mrs. J. S. DuBois, District Vice-President.

Mr. Robert B. Ingram, Executive Director, ALAPAC, has been invited to speak at each of these workshops. We feel there is an urgent need for physicians' wives to become informed on the political issues of the day and to take an active part in politics.

In closing may I take this opportunity to tell the doctors of Madison County how very proud we are to have their wives as members of our Auxiliary.

Most sincerely,

Kay Guin

Mrs. James C. Guin, Jr.
President



"I've hinted and hinted for him to ask me out, but in his case, MD stands for Mighty Dense."

Reprinted from **THE NEW PHYSICIAN**

AMA Schedules National Conference On Emergency Medical Services

"The Community and Emergency Medical Services" will be the theme of a national conference sponsored by the American Medical Association January 18-20, 1968 at the San Francisco Hilton Hotel, San Francisco, California.

During the 2½ day program all aspects of a community's emergency medical services system will be discussed in terms of identification, coordination, and implementation. This system includes: first aid and emergency care, transportation of the ill and injured, emergency communications, and emergency facilities.

Special emphasis will be placed upon the development of Community Councils on Emergency Medical Services and ways and means of financing the community's emergency medical services system. Roles of the U. S. Department of Transportation, Public Health Service, state government and organized medicine also will be discussed.

The conference is open to all persons involved or interested in their community's emergency medical care. This includes physicians; allied health personnel; hospital administrators; providers of ambulance services; public safety officials—police, fire and sheriff; government officials—local, county and state; representatives of service organizations; planners; educators; and private citizens. A cross section of the various national leaders of the above groups will be featured on the conference program.

An added highlight will be industrial and organizational exhibits related to the various aspects of the emergency medical services system.

For further information, write to: American Medical Association, Department of Hospitals and Medical Facilities, 535 North Dearborn Street, Chicago, Illinois 60610.



Editorial COMMENT

Title XIX A Booby Trap

The mettle of Alabama physicians will receive its sternest test within the next two years as the Federal Government moves rapidly to implement health care programs throughout the State.

The action of Governor Lurleen Wallace in transferring responsibility for Title XIX to the State Board of Health in effect places this burden squarely upon the shoulders of every member of this Association. There will be great pressures put upon Alabama to hasten into a Title XIX program in order to comply with the deadline of 1975 for establishment of comprehensive health care for the indigent and medically indigent at all age levels.

It behooves the Medical Association of the State of Alabama to sound a note of caution to those charged with the responsibility for developing a Title XIX program. There is ample evidence from other states which charged pellmell into this most socialistic venture ever promulgated by the Congress of the United States. Grievous abuses have been recorded, particularly New York and California, where the Title XIX program has resulted in staggering deficits.

Regard this report published in the latest issue of the Bulletin of the Los Angeles County Medical Society:

"The Reagan Administration must limit benefits, restrict eligibility or impose a fee schedule on physicians to control runaway costs of the Medi-Cal program," Health and Welfare Administrator Spencer Williams has announced.

"Williams discussed a recently discovered $150 million deficit in the program with legislators, health and medical service representatives and State officials.

"He said about half of the deficit must be paid by the State general fund. The other half would be picked up by the Federal government and by counties.

"Under a Medi-Cal cost control bill passed by the Legislature earlier this year, Williams is required to take administrative steps to keep the program within its budget.

"He called an emergency meeting of the Health and Review Program Council August 4 to discuss specific moves.

"Williams declined to talk about details in advance of the August meeting but he said costs could be cut by reducing services available under the program, imposing a schedule of maximum fees the State will pay doctors and other vendors, restricting eligibility or a combination of all three.

"Part of the deficit is purely on paper, a sort of reverse windfall," Williams said. "But it must be paid off this year even though it probably will not recur in subsequent years.

"Attorney General Thomas C. Lynch has issued an opinion that the law requires the Medi-Cal program to show expenses on its books when the services are rendered to a beneficiary, not when the bill is ultimately paid. Sometimes there is a lag of two months or more between performances of the service and payment of the bill.

(Continued on Page 371)



one step ahead

Times change and classic lobar pneumonia is rare. Your next pneumonia patient may have an atypical clinical picture and perhaps a pathogen in his sputum such as *H. influenzae* or *Mycoplasma pneumoniae* (Eaton Agent), which is believed to be responsible for one out of every five cases of pneumonia. That's why it makes sense to keep one step ahead—and prescribe the true broad-spectrum antimicrobial activity of DECLOMYCIN.

With DECLOMYCIN, you get effective action against both *H. influenzae* and *Mycoplasma pneumoniae*, plus prolonged high levels of antibiotic activity in the blood and the lung tissue. You're one step ahead with...

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE

Lederle

Prescribing information on next page.

For a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill.

For common and unusual pneumonias

DECLOMYCIN Demethylchlortetracycline should be equally or more effective therapeutically than other tetracyclines when the offending organisms are tetracycline-sensitive.

Contraindication: History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth — dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE

LEDERLE LABORATORIES, A Division of
American Cyanamid Company, Pearl River, New York

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TITLE XIX A BOOBY TRAP

(Continued from Page 368)

"Conversion to the accrual accounting system recommended by Lynch accounted for about $80 million of the $150 million deficit, State figures revealed.

"Carel Mulder, Director of Health Care Services, said part of the rest of the deficit was due to a preference on the part of recipients for private hospitals instead of county hospitals. Under the Medi-Cal law, a recipient can choose his own hospital.

"Use of private hospitals by indigents has increased 45 per cent since the Medi-Cal program went into effect, while use of county hospitals has declined steadily.

"Governor Ronald Reagan told his weekly news conference that Williams was trying to 'find administratively all we can do to bring this program back to sensible proportions.'

"But he said the action was limited by legislation and Federal regulations."

The Monster We Created

"It is my opinion that few of the 1,500 doctors in Denver are aware of the monster we are creating."

The speaker was Dr. Daniel B. Benedict, and he was referring to the establishment of Neighborhood Health Centers in Denver, Colorado. The program was sired by the Office of Economic Opportunity (OEO). Dr. Benedict isn't right sure who the mother was, but he is reasonably certain there was no marriage.

His remarks are pertinent to medicine in Alabama because at this very moment an OEO-sponsored program is being finalized in Lowndes County, and similar programs are being considered for other areas of the state.

Dr. Benedict's report is one of frustration and disgust—frustration because of the inability of the Denver Medical Society to have its voice heard in the operation of the vast program; disgust at the "giveaway" aspects of this federal program.

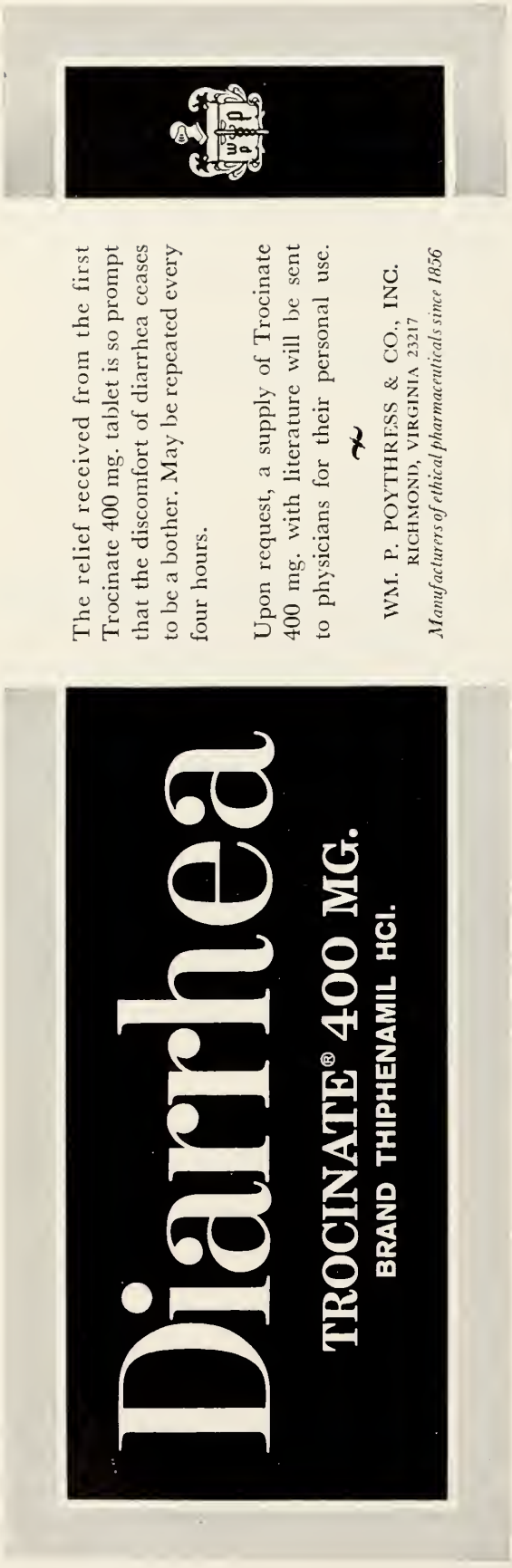
As has been the case in so many federal programs, the initial cost of the Denver project was estimated to be $175,000 a year. It is now anticipated, Dr. Benedict said, that the 1968 budget will be approximately $8,000,000.

What is provided under this program? A one word answer suffices: Everything. Here is Dr. Benedict's own words in describing one of the health centers in Denver:

"The center occupies rented space on the ground floor of a building at 2900 Welton Street. These quarters have been remodeled, are newly furnished, and are not at all unattractive. Here, clinics are held and emergency service is offered for a complete range of medical care including medical, surgical, pediatric, psychiatric, prenatal, postnatal and dental care. Patients are picked up and returned to their home by shuttle bus; baby sitters are provided, if called for; and emergency cases go to Denver General Hospital by ambulance.

No inquiry is made as to ability of patient to pay; and in the first six weeks of operation, no money has been collected, no referrals made to private physicians, and no patients have been sent to any hospitals other than Denver General. About 500 patients a week are served.

The center is staffed by more than 100 employes, including six full-time physicians, five dentists, four dental residents and interns, eight nurses, a bio-statistician and an epidemiologist. There are also 32 'neighborhood aides' employed full time at a salary of $303 per month each. These aides go from



door to door inquiring if anyone on the premises feels ill or has a toothache, in which case referral to the center is made."

The "Denver Story" could go on and on, but suffice it to say that the moral is this: When the medical profession fails to take the leadership in health care programs, or as in the case of Denver, is not allowed to exert leadership, the end result is certain to be, in Dr. Benedict's own words, the creation of a monster.

The prevention of a repeat of the "Denver Story" in Alabama is the primary reason why county medical societies in Alabama are at this moment being urged to establish health care advisory committees. If the physician doesn't take the ball and run with it, somebody else will.

A Salute To Calhoun Physicians

The performance of physicians in times of disaster is not only glossed over in the major cities, where high-powered news media have every opportunity to record their services, but the same situation often holds true in smaller communities.

Recently an interstate bus traveling from Atlanta to Birmingham was sideswiped by another vehicle and plunged with its terror-stricken passengers into a watery ravine.

Fortunately, a passing motorist observed the accident and reported it immediately to the police. Before the first victim arrived at the hospital, seven surgeon-members of the Calhoun County Medical Society were there to receive and care for the injured.

The accident occurred on a Saturday night in summer. The Journal salutes those physicians who immediately answered the call to duty without regard to personal welfare or the loss of their own much needed relaxation.

Summer's Unsung Heroes

America's emergence from a "long hot summer" of racial disturbances, has left in its wake many dramatic instances of forebearance, fortitude and fidelity. Every city in which riots have occurred has its roster of those men and women who went beyond the call of duty to re-establish peace and tranquility.

Federal troops, National Guardsmen, policemen, firemen and just plain ordinary citizens came under the withering gunfire of the rioters, arsonists and looters.

Amid this hail of lead, not to mention the crushing blows of blackjacks and billysticks, the molotov cocktails and speeding vehicles, it was inevitable that thousands of persons would be killed or injured.

From the rubble of burned-out cities there arose men and women who, at the risk of their own lives, performed magnificently behind the scenes. They worked largely without reward and scant recognition.

We refer to the physicians, technicians, nurses, orderlies and other hospital staff members in Detroit, Newark, and other points north, east, south and west who spent long hours and longer days, often while bullets were crashing through the windows of their hospitals, in attending the victims. Detroit General Hospital alone, in a six-day period, handled 1,475 cases of riot-related injuries. This service was rendered by the medical staff assisted by 150 residents, 40 interns and dozens of other physicians from the Wayne State University College of Medicine.

Nurses, laboratory and X-ray technicians, anesthesiologists—in fact the entire hospital organization—quickly met Detroit's emergency. There were treated, during the six days, 738 cases of trauma including 131 gunshot wounds, 332 stab wounds and lacerations and 275 concussions, burns or other injuries. To make it more difficult, among the first 456 patients treated, 344 were in shock.

Even as the doctors and their assistants worked feverishly over the victims, rioters fired sporadically upon the hospital. Ironically those who were devoting their skills to the relief of the rioters were, themselves, threatened with death or injuries for their efforts. Small reward, indeed, for their dedication.

It is fortunate that Detroit General had developed a plan for disaster more than a year preceding the riots, otherwise there would have been confusion beyond description and, unquestionably, the death toll would have been higher.

It is our hope that when accolades are handed out, the physicians and members of Detroit General, and all the other medical facilities in riot-torn communities, will finally receive their just reward. They have brightened the image of the medical profession.



"No wonder I've been prescribing glasses for everyone . *all these years I've thought it was a 'B'."*

Reprinted from **THE NEW PHYSICIAN**

Physician Influence Is Potent

It is admittedly an old, well-worn cliche, but some of the old and well-worn cliches are the best ones. Hence, we repeat it: "Laws are made where the lawmakers are made."

We use that expression to sum up the regular session of the Alabama Legislature which adjourned sine die in the early minutes of September 1, as it relates to health and medical legislation.

With a few exceptions, the 1967 session proved to be a highly successful one for the medical profession. And this was so because of a great amount of effort by physicians in their own home towns—"where the lawmakers are made," to quote that cliche again.

Certainly a considerable amount of lobbying was done on Capitol Hill, but this served only to complement the much more effective lobbying done by physicians and physicians' wives in the home towns of the legislators.

On any number of legislative issues, a call for help was sent out over the state by the Central Office staff to politically-alert physicians. The response was excellent, the results were excellent.

A classic example of this concerned a bill which never passed, but a bill which served an important purpose—Senate Bill 293, which proposed to designate the State Board of Health as the single state agency for Title XIX. Doctors and Auxiliary members throughout the State went to work in behalf of that measure. They were so successful that only a few days after its introduction Pensions and Security Commissioner Ruben King saw the handwriting on the wall and agreed to withdraw his opposition to redesignation by executive order.

In the closing days of the session two of the most politically potent groups in Alabama—the Associated Industries of Alabama (AIA) and the Alabama State Chamber of Commerce—brought their considerable pressure to bear to win approval of a package of air pollution bills which had been determined to be most objectionable by the State Health Department. Taking on these two groups in a legislative fight is normally tantamount to suicide, yet through the united efforts of a number of physicians the bills were stopped cold.

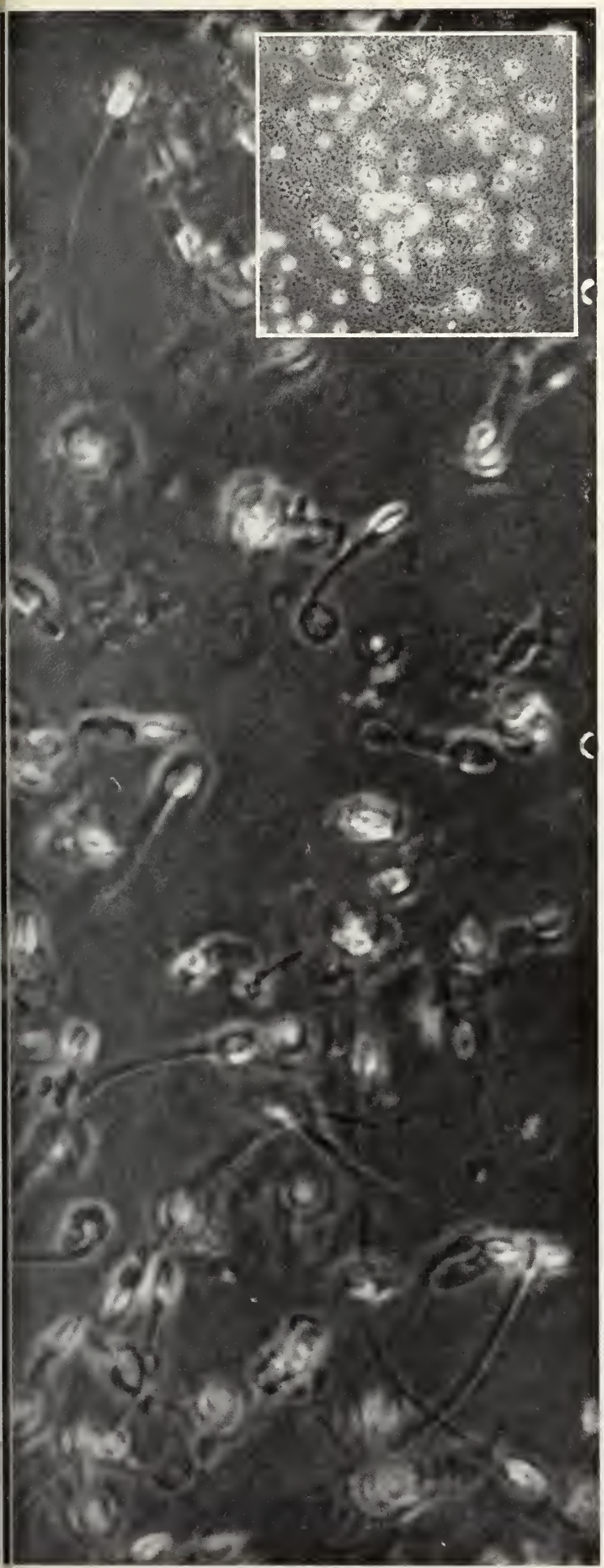
In recent years the medical profession has begun to realize the enormous influence it can wield in legislative matters. The legislative achievements by the medical profession is long and impressive, and involves tens of millions of dollars for public health purposes.

Impressive though this record is, it can be even more so when all the physicians of Alabama determine to use all of their considerable influence in the political arena. The past record proves that the opportunity is there, the future will determine whether the profession makes the most of it.

A QUOTE . . .

"I am interested in physical medicine because my father was. I am interested in medical research because I believe in it. I am interested in arthritis because I have it."

—Bernard Baruch



New view of an oral contraceptive at work

Although suppression of ovulation remains the primary mode of action of oral contraceptives, newer knowledge indicates that products like Norinyl-1—a combination of both low-dosage progestogen and estrogen for the full treatment cycle—may provide multiple action that helps explain their unexcelled record of contraceptive effectiveness. This report explores the possible secondary protective mechanisms offered by combined hormonal administration.

Accumulating evidence has indicated that sparse, highly viscous cervical mucus has a possible adverse effect on the motility and survival of spermatozoa.

The estrogen-opposing progestational ingredient of Norinyl-1 (norethindrone 1 mg. with mestranol 0.05 mg.) changes the usual midcycle picture of a thin, watery cervical mucus. The result—a built-in barrier that appears to inhibit sperm from reaching the ovum should one be released. The inset in the adjoining photograph shows immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

See last page for contraindications, precautions, side effects and dosage.

How the estrogen-opposing action of Norinyl-1 creates cervical mucus that may be hostile to sperm penetration

Normally, estrogen activity during the fertile midcycle stimulates the production of a profuse and watery cervical mucus that permits maximum sperm motility and promotes penetration.

But what happens when Norinyl-1 is administered? Its potent progestogen, norethindrone, opposes estrogen stimulation of cervical mucus. Consequently, the amount of mucus decreases and its viscosity increases. This results in a sparse but thick mucus barrier that appears to diminish the vitality of the sperm and to impair its powers of penetration.

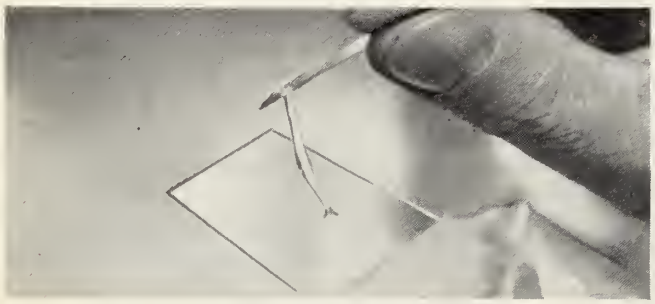
The role of viscous cervical mucus as a secondary action of Norinyl-1

In a report on 89 patients taking this medication,* cervical mucus obtained from cycle day 5 to cycle day 29 appeared scant and thick and exhibited little or no Spinnbarkeit.

In the opinion of this investigator, the effect on cervical mucus may be sufficient to prevent conception.

*Cohen, M. R.: Symposium: Mechanisms of Action of Low Dosage Oral Contraceptive, Yale University Medical Center, New Haven, Conn., April 6, 1967.

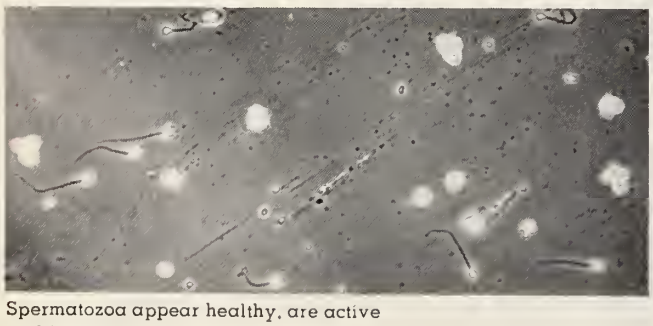
Normal cervical mucus at midcycle in untreated patient is known to permit sperm motility... promote sperm penetration.



Cervical mucus is thin and watery with a stretchability (Spinnbarkeit) of 15 to 20 cm.



Thin, watery mucus crystallizes into this well-defined, fernlike pattern within a minute.

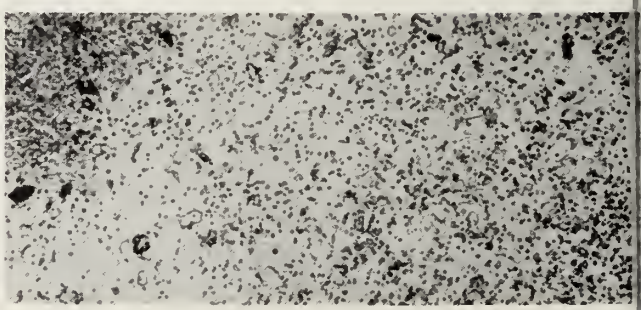


Spermatozoa appear healthy, are active and freemoving.

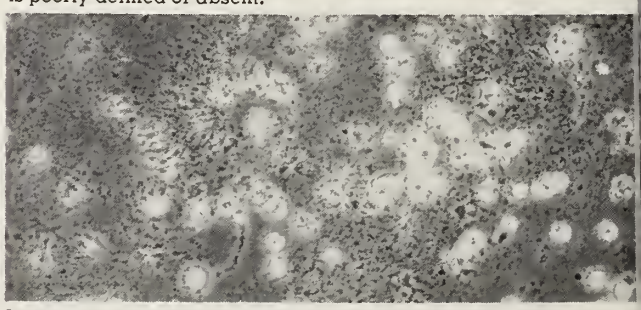
Viscous cervical mucus at midcycle produced by Norinyl-1 appears to impair sperm vitality... inhibit penetration.



Cervical mucus is scanty, thick and viscous. Spinnbarkeit is 1 cm. or less.



In thick, viscous cervical mucus the fern pattern is poorly defined or absent.



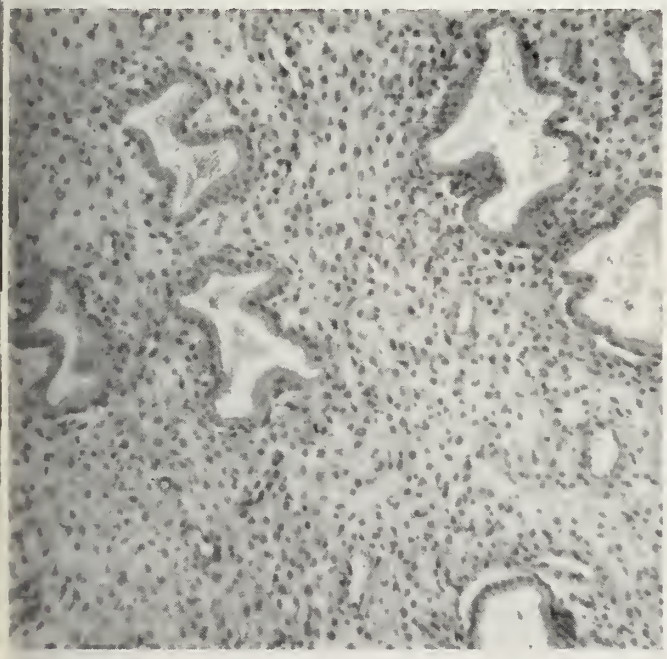
Immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

How Norinyl-1 alters normal endometrial responses—another possible protective mechanism

Let us suppose that an ovum is released—as occurs in an occasional, rare case—and somehow a sperm succeeds in penetrating the cervical mucus barrier. Should this come about, one additional action of Norinyl-1 may protect the patient from unwanted pregnancy. The theory is that progestogen intake makes endometrial tissue unreceptive to implantation.

Endometrium of untreated patient

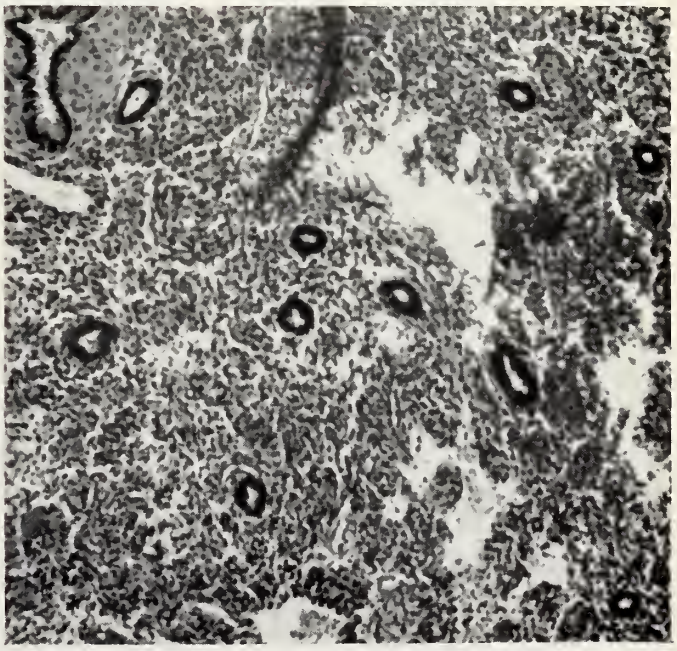




Normally, the endometrium progresses through a proliferative phase stimulated by estrogen and a secretory phase stimulated by progesterone. During the secretory phase the endometrium is receptive to the fertilized ovum.

Endometrium produced by Norinyl-1





When Norinyl-1 is administered its progestogen component—norethindrone—accelerates the secretory phase and suppresses glandular and vascular development.

new Norinyl®-1 tablets

(norethindrone 1mg. & mestranol 0.05mg.)

See last page for contraindications, precautions, side effects and dosage.

effective fertility control
on half the previous dosage

maintains ratio
of the established
norethindrone/mestranol
combination

lower cost

new Norinyl-1®

(norethindrone 1mg. c̄ mestranol 0.05mg.) tablets

Reduction of oral contraceptive dosage to lowest effective levels h become a well-accepted principle of conservative medical practi In keeping with this view, Norinyl is now available in a new streng in which *both* norethindrone and mestranol are reduced 50 perce Studies show that Norinyl-1 achieves fertility control with only 1.(mg. of combined progestogen and estrogen per tablet.

Norethindrone was first reported for use as a progestational agent human beings in 1955. Norethindrone 2 mg. with mestranol 0.1 mg., an oral contraceptive, is currently in use by over 2,000,000 wome Clinical experience now establishes that Norinyl-1 also amply mee the criteria of reliability and safety.*

*Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965.

PRESCRIBING INFORMATION

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of Norinyl-1 in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with Norinyl-1. Therefore, if such tests are abnormal in a patient taking Norinyl-1, it is recommended that they be repeated after the drug has been withdrawn for 2 months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibroids may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac, or renal dysfunction, require careful observation. 5. Although a cause and effect relationship has not been established, Norinyl-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged Norinyl-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Norinyl-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. A cause and effect relationship has not been demonstrated. 11. Because of the effects of estrogens on epiphyseal closure, Norinyl-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask the onset of the climacteric. 13. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma, breast changes (tenderness, enlargement and secretion), loss of scalp hair, change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, erythema multiforme, erythema nodosum, hemorrhagic eruption, migraine, rash (allergic), itching, rise in blood pressure in susceptible individuals, mental depression.

The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has not been established: thrombophlebitis, pulmonary embolism, neurooocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: creased bromsulphalein retention and oth hepatic function tests, coagulation tests crease in prothrombin, factors VII, VIII, IX a X), thyroid function (increase in PBI and bu nol extractable protein-bound iodine and crease in T^3 values), metapyrone test, pregna diol determination.

Other side effects reported to have occurr in association with use of this drug are di ness, hirsutism, pains in legs, back, chest a abdomen, dysuria, drowsiness, vaginal c charge, libido increased and decreased, er tions, hypermenorrhea, hypomenorrh increased appetite, G.U. infections, varico veins, abdominal fullness, acne, headac nervousness, allergies, blurred vision, pain eyes, and itching in eyes. *For complete clinic data, see package insert.*

Dosage and Administration: 1. One tablet Norinyl-1 is administered orally for 20 da beginning on day 5 of the menstrual cyc (Count day 1 of the cycle as the first day menstrual bleeding.) Repeat this dosage sch ule for each cycle. 2. If no menstrual peric occurs after a cycle of treatment (20 tablets) which patient adhered to the schedule, the p tient must be instructed to resume taking th Norinyl-1 tablets 7 days after the previous day course was completed. For example, if th last pill of a previous cycle had been taken c a Sunday, then a new cycle of treatment shou begin on the following Sunday. 3. In the po partum woman, it is recommended that th first cycle of treatment should begin on day of the first menstrual cycle. However, Norinyl should not be administered during lactation.

Availability: Norinyl-1 (norethindrone 1 m with mestranol 0.05 mg.)—Dispensers of 20 an 60 and bottles of 250 tablets.

norethindrone — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

A Building Block approach to treating hypertension

With these three therapeutic building blocks you can create a once-a-day regimen to fit almost any degree of hypertension. See the following pages for details . . .



Consider starting your hypertensives on this basic thiazide

ABBOTT

A single daily dose of Enduron provides sodium excretion around the clock

Enduron is a true 24-hour single-dose thiazide. Its sodium excretion is not squeezed into an abrupt peak during the first several hours. It is well-sustained in a plateau-like effect—with little reduction for the first 12 hours, and decline thereafter only gradual.

Potassium loss, by contrast, is low. It reaches an early minor peak, then subsides rapidly. Moreover, since dosage is but once a day, there is but one daily peak of potassium loss. As with all thiazides, however, dietary potassium supplementation should also be considered, especially in long or intensive therapy.

Use Enduron as an ideal starting therapy in mild hypertension. Use it too, as a basic therapeutic building block with which other agents can be joined, for managing your more resistant hypertensives.

Once a day, every day

ENDURON®
METHYCLOTHIAZIDE



DAILY DOSAGE RANGE	Minimum	Usual	Intermediate	Maximum
	2.5 mg. tablet	5 mg. tablet	7.5 mg.	10 mg.

See Brief Summary on final page of advertisement.

To build added response, shift to Enduronyl

The deserpidine component adds enhanced antihypertensive activity

The rauwolfia component of Enduronyl is deserpidine (Harmonyl®), a purified crystalline alkaloid supplied only by Abbott. It augments Enduron with its own antihypertensive and tranquilizing action.

Thus the combined clinical effect of these two therapeutic building blocks in Enduronyl is greater than can ordinarily be achieved with either alone.

To add flexibility, Enduronyl comes in two strengths: regular and Forte. Both provide 5 mg. of Enduron. The variation is where most helpful: in the deserpidine. The tablets are scored, and give a surprisingly wide and economical choice of once-a-day doses (see below).

Choose Enduronyl for your patients in the broad range of mild to moderate hypertension. Patient acceptance is excellent!



Once a day, every day

ENDURONYL®

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.25 MG.

ENDURONYL FORTE

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.5 MG.

	Minimum	Usual	Intermediate	Maximum
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.125 mg. deserpidine	5 mg. methyclothiazide 0.25 mg. deserpidine	7.5 mg. methyclothiazide 0.375 mg. deserpidine	10 mg. methyclothiazide 0.5 mg. deserpidine
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.25 mg. deserpidine	5 mg. methyclothiazide 0.5 mg. deserpidine	7.5 mg. methyclothiazide 0.75 mg. deserpidine	10 mg. methyclothiazide 1 mg. deserpidine

See Brief Summary on final page of advertisement.

707075-R

Eutonyl affords a different kind of basic therapy for moderate to severe cases

ABBOTT

Effect tied to reduced peripheral vascular resistance; no central depressant action

Eutonyl is a unique nonhydrazine agent. It is reported to act by reducing peripheral vascular resistance.[1,2]

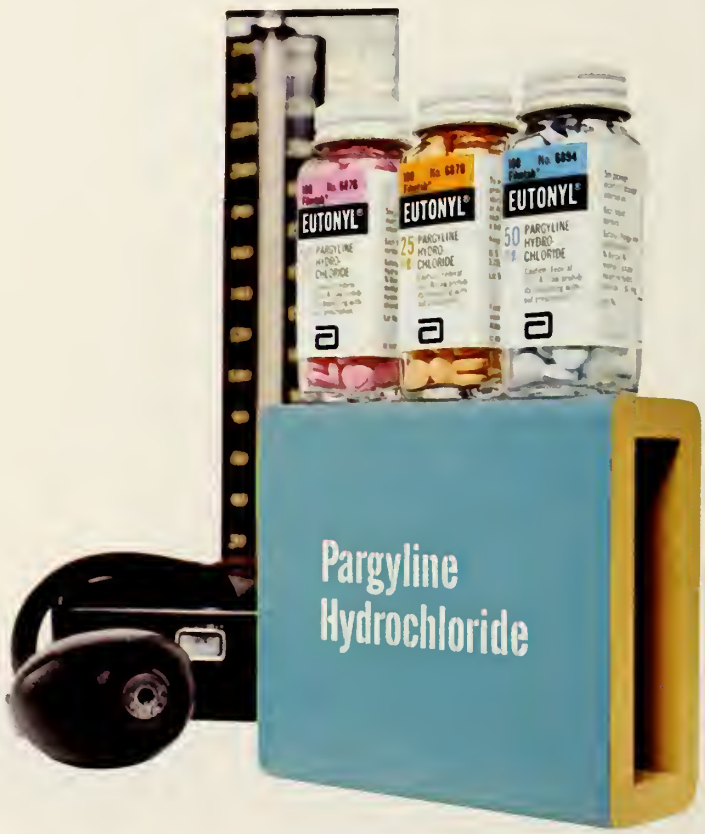
In clinical trials, significant reductions in mean blood pressure were seen in 84% of patients studied—all were moderate to severe cases. Eutonyl lowers diastolic in proportion to systolic, and in about half of the cases studied, reductions in the sitting and recumbent positions were nearly as great as in the standing position.

Most important: There is no central depressant action. In fact, some patients reported an *increased* sense of well being.

Here, then, is a highly effective *basic treatment* for moderate to severe cases—and one that will not hamper your patient with lethargy or drowsiness while on treatment.

Once a day, every day

EUTONYL®
PARGYLINE HYDROCHLORIDE



DAILY DOSAGE RANGE	Minimum	Usual starting	Intermediate	Maximum
	10 mg. tablet	25 mg. tablet	50 mg. tablet or as needed	200 mg.

1. Brest, A. N., et al., Cardiac and Renal Hemodynamic Response to Pargyline, Ann. N. Y. Acad. Sci., 107-1016, 1963.
2. Winsor, T., Pargyline Hydrochloride, Hypertension, Urinary Tryptamine, and Vascular Reflexes, Geriatrics, 19:598, Aug., 1964.

See Brief Summary on final page of advertisement.

Eutron adds thiazide for enhanced therapy with milder side effects

Only a 7/4 mm. span between standing and recumbent pressures in clinical trials—reduced chance of orthostatic hypotension

The combining of Eutonyl and Enduron in Eutron permits a significantly greater antihypertensive effect than with either agent used alone. This in turn may allow therapeutic success with lesser dosage—and correspondingly milder side effects.

A significant finding in clinical trials was the drug's action in lowering blood pressure to *nearly equal levels in all body positions*. Total average spread between standing and recumbent readings (after treatment) was only 7/4 mm. Hg.

Thus, in your moderate to severe cases, Eutron affords a usually smooth course of therapy, often with reduced likelihood of orthostatic effects. (The usual precautions against rising suddenly, of course, will always apply.) And, because of the thiazide component, Eutron may be used in the presence of congestive heart failure.





Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 MG.
WITH METHYCLOTHIAZIDE 5 MG.

DAILY DOSAGE RANGE	Minimum	Usual starting	Intermediate	Maximum
				
	12.5 mg. pargyline hydrochloride and 2.5 mg. methyclothiazide	25 mg. pargyline hydrochloride and 5 mg. methyclothiazide	37.5 mg. pargyline hydrochloride and 7.5 mg. methyclothiazide	50 mg. pargyline hydrochloride and 10 mg. methyclothiazide

See Brief Summary on final page of advertisement.

TM—Trademark

707075-R

ENDURON | ENDURONYL

METHYCLOTHIAZIDE

Each tablet contains
Methyclothiazide 5 mg. with
Deserpidine 0.25 mg. or 0.5 mg.

Indications: Enduron is used to control edema and mild to moderate hypertension; also used with other drugs for hypertension. Enduronyl is used in mild to moderately severe hypertension; when used with Enduronyl, more potent agents can be given at reduced dosage to minimize undesirable side effects.

Contraindications: Neither Enduron nor Enduronyl should be used in severe renal disease (except nephrosis) or shutdown; in severe hepatic disease or impending hepatic coma; in patients sensitive to thiazides. Hepatic coma has been reported as a result of hypokalemia in patients receiving thiazides.

Enduronyl is contraindicated in patients with severe mental depression and suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity reactions in patients with a history of allergy or asthma. If added potassium intake is indicated, dietary supplementation is recommended. Enteric-coated potassium tablets should be reserved for cautious use only when adequate dietary supplementation is not practical because those tablets may induce serious or fatal small bowel lesions consisting of stenosis with or without ulceration. These small bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs.

Precautions: Use thiazides with caution in severe renal dysfunction, impaired hepatic function, or progressive liver disease. In surgical patients, thiazides may reduce the response to vasopressors and increase the response to tubocurarine. Use thiazides with caution in pregnancy (bone marrow depression, thrombocytopenia, or altered carbohydrate metabolism have been reported in certain newborn infants). Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. Antihypertensive response may be enhanced following sympathectomy.

Use Enduronyl with caution in patients with a history of peptic ulcer, as rauwolfias may increase gastric secretion. Discontinue at the first sign of mental depression. Rauwolfia alkaloids may increase hypotensive effects of surgery or anesthesia, and should be discontinued two weeks prior. They also lower the convulsive threshold and shorten seizure latency. In epilepsy, dosage adjustment of anticonvulsant medication may be necessary. Alcohol, barbiturates, or narcotics may potentiate action of deserpidine.

Adverse Reactions: During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). All patients should be observed for signs of hyponatremia ("low-salt" syndrome). Reported thiazide reactions include: anorexia, nausea, vomiting, diarrhea, headache, skin rash, dizziness, paresthesia, weakness, photosensitivity, jaundice, and pancreatitis.

Reported rauwolfia reactions include: nasal stuffiness, nausea, weight gain, diarrhea, aggravation of peptic ulcer, epistaxis, skin eruption, and reduction of libido and potency. Excessive drowsiness, fatigue, weakness, and nightmares may signal early signs of mental depression.

EUTONYL | EUTRON™

PARGYLINE HYDROCHLORIDE

Each tablet contains
Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amenable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-Trademark.

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅕ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea; vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

709075R

ABBOTT

Poison—Childhood Enemy Number One

Our children are poisoning themselves at the rate of nearly 1,500 a day—and they're doing it while "safely" at home.

Each year, 500 of them die from the effects of a startling assortment of poison-packed products that can be found in any home. That's more deaths than are caused by polio, diphtheria, typhoid, scarlet fever and measles combined.

In fact, accidental poisoning at home is the most common emergency encountered by pediatricians, outranking falls, burns, sudden illness and all the other miscellany of medical problems common among children.

Public health officials point out that there is a widespread misconception among parents about what constitutes a poison. Consequently we have drifted into lethal living habits and as new labor-saving items go onto kitchen shelves, as new beauty aids are added to the dresser and as new drugs appear in medicine cabinets, the poisoning potential goes up.

The Public Health Service reports that about a quarter million products, designed for use in and about the home, contain toxins. Dangers lurk in a variety of common disguises and may even be hiding in the food cupboard. A few spoonfuls of ordinary table salt, for instance, can cause brain damage or death in an infant.

Admittedly salt poisoning is rare. Children can't abide much in the way of strong seasonings. But many household nonedibles seem to have a large appetite appeal for youngsters. Furniture polish, detergent, deodorant, medicine drops, even a few paint chips, well chewed, are among the many concoctions frequently sampled by young palates. The result is often a wild dash for the nearest stomach pump.

A Science Feature Article prepared by the Communications Division, American Medical Association.

The first really concentrated attempt to do something about poisons in the home came in 1927 with enactment of the federal Caustic Poisons Act. This law, at the time it became effective, set forth safety requirements for just 12 corrosive substances.

During the past decade broad new attacks have been made on the problem at the insistence of pediatricians, the American Medical Association and public health physicians.

Based on case studies and recommendations from these groups, the Hazardous Substance Labeling Act was signed into law by the President in 1960. The act endeavors to make household aids and medicines safer to keep around the house by requiring the label of such products to list poisons, antidotes and recommendations for use.

Doctors themselves have actively organized one of the most important advancements in the drive against self-poisoning—the poison control center. Here the poison contents of thousands of trade-name products are cross indexed. A call to any of these centers, located in hospitals across the country, will give a doctor the information he needs to help a youngster who may have unwisely imbibed from a bleach or perfume bottle.

At the request of the centers themselves, their work has been coordinated by the Department of Health, Education and Welfare which established the National Clearinghouse for Poison Control Centers in Washington.

Despite these efforts, both Congress and public health officials are well aware that there is no substitute for caution in the home. Informed, alert parents are the only real bulwark against the creeping increase in child poisonings, which average about a half million yearly.

"If I'd only known. . . " is the lament heard all too often from a mother who awaits

(Continued on Page 387)

There are 35,700* undetected diabetics in Alabama

Most of these are probably among patients over 40; the overweight; relatives of diabetics, and mothers of large babies. By the time polyphagia, polyuria, polydipsia, pruritus or other overt symptoms of diabetes appear, damage may have been done that could have been minimized. DEXTROSTIX® gives you a reliable blood-glucose estimate in 60 seconds.

Why Wait?



*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. 80:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.

AMES COMPANY, Division Miles Laboratories, Inc., Elkhart, Indiana 46514 428R67

Ames

POISON—CHILDHOOD ENEMY

(Continued from Page 385)

word from the emergency room about her poisoned child.

What parents should know is this:

• Cleaning and polishing agents, detergents, shoe polish, cosmetics, waxes, insecticides, paint, turpentine, petroleum-based products, wave lotions, chalk, bleaches, plant foods and sprays, plaster and thousands of similar items all may contain poison.

• Too much of virtually any medicine, even ordinary headache pills, can have toxic effects.

• A child's native curiosity will lead him to sample almost anything—even Christmas decorations, which often contain poisons. No child is safe in a room by himself, at least not for long.

A weekend report taken at random from the files of the New York City Poison Control Center illustrates what parents are up against when it comes to riding herd on junior's impromptu intake. Forty-nine reports concerning children were received that particular Saturday and Sunday. Of these five had swigged perfume and cologne, four tried laundry bleach, a like number tested baby powder and three coated their insides with paint. The individualists among them swallowed such things as corn remover, medicated salve, lighter fluid, and a wide variety of other substances ranging from deodorants to laxatives.

Case studies of such reports have a grim ring to them: A five-year-old girl spends ten days in the hospital after obligingly taking a teaspoon of dish washing powder offered by her two-year-old sister; a drink of kerosene nearly kills a Pennsylvania toddler; death comes swiftly to a little boy given a teaspoon of liquid from an old mineral oil bottle in which carbon tetrachloride was stored.

Not all poisons have to be swallowed to be deadly. A one-year-old child crawled through a puddle of insecticide spilled on the porch floor and absorbed a fatal dose through his skin. Two farm children were killed by a strong bug spray that passed into their bodies from a saturated burlap bag with which they were playing.

The intake of poisons carelessly stored in ordinary food containers is extremely high, occurring in about one-third of all cases involving children. They have killed themselves by consuming rat poison from a teacup, kerosene from a pop bottle, benzene from a milk bottle, bleach from a drinking glass and detergent from a cereal bowl. The contents of such utensils are automatically considered food by young minds.

Warning a child, even repeatedly, is not enough. For most poisonings occur among children under five—the age group with an undeveloped sense of danger. But there is nothing backward about their curiosity at this stage of life, and the ability of a child to first get about on his own is a sure sign that unaccountable things are going to start popping into his mouth. Two-year-olds are our number-one self-poisoners with one-year-olds close behind.

Medicines have a particular attraction. Perhaps it's because children want to mimic their parents, or perhaps they're just partial to tiny pills and little bottles. In any event, drugs left within reach of a child usually disappear quickly and account for 47 per cent of all poisonings.

Aspirin, a virtual staple in every home, is by far the favorite. It is the primary cause of poison deaths among children under five, according to a study by Dr. Matilda S. McIntire of the Omaha Poison Control Center. This drug in large doses can knock the delicate body chemistry out of balance causing heart failure, kidney damage or convulsions.

A spurt of unorthodox aspirin gobbling has coincided with the marketing of flavored tablets for youngsters. One little girl almost

(Continued on Page 390)

Wounds, abscess, cellulitis



...and the complications of staph.

Staph reliably controlled with specific therapy



A suitable dosage form for every staph situation

From time of birth, the child is exposed to a whole range of potential staph infections: wounds; secondarily infected dermatoses; primary lesions, such as deep impetigo (ecthyma), boils and felons; and more serious conditions such as osteomyelitis, staph pneumonia and staph meningitis.

Bactericidal

Hardly a staph organism can resist the bactericidal action of Prostaphlin® (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically Proven

There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo*, therapy with oxacillin can be extended when necessary.

Outstanding Safety Record

Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Suspension and Injectable

Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—an oral solution for pediatric use, capsules, and multi-dose vials for injection.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY 8:12.16**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

BRISTOL

BRISTOL LABORATORIES/Division of Bristol-Myers Co., Syracuse, N.Y.

Whenever you suspect staph PROSTAPHLIN®

SODIUM OXACILLIN

POISON—CHILDHOOD ENEMY

(Continued from Page 387)

created an epidemic of aspirin poisoning singlehandedly. She staged a candy party for her young friends with flavored aspirin as the main delicacy. That particular party ended quickly in a hospital emergency room.

The wisdom of flavoring medicines has evoked mixed feelings among doctors. Some think they should be outlawed, others contend flavoring is helpful to get children to take medicine. Dr. Harold Jacobziner, Assistant Commissioner of the New York City Department of Health, reported that experience in the city's poison control centers would indicate "aspirin per se is the culprit and not the flavoring." Children, it seems, will eat most anything without regard to flavor, unless it happens to be the food that's best for them.

Barbiturates are another killer in the medicine cabinet. Actually the number of children who get among the sleeping pills, goof balls, yellow jackets, red devils, etc. is not high—probably because of the well publicized dangers. Incautious adults are by far the more frequent victims. The fact is that more people of all ages die from an overdosage of barbiturates than any other medicine. And no wonder! More than 2,000 tons of this drug in various forms are sold each year in the United States.

Other potentially deadly medicines frequently pumped from the stomachs of youngsters include oil of wintergreen, digitalis, tranquilizers, liniments, laxatives and strong cough medicines.

Most accidents with medicine result from lackadaisical handling. The dresser top is no place for hair spray, nor is the wash stand a safe place for eye drops. Medicine cabinets are the best place for such things, since they are usually above the reach of children—unless your child happens to be an inveterate climber. Then special measures may be required.

Even those parents who keep drugs virtually under lock and key seem to forget that most poisons don't come in small bottles. Household supplies provide children with most of the poisons to which they fall victim.

In the average home there are more toxics stored at floor level in the kitchen than in any other room. A survey showed that 34 per cent of all poison mishaps occurred in the kitchen. It is the most deadly room in the house.

The cabinet under the sink and the broom closet are natural poison catch-alls—and natural places of intrigue for toddlers and crawlers. Into these accessible nooks go many of the 2,000 new home-use products that hit retail counters each month. The bright sales-appeal wrappers on most serve to further stir the inquisitiveness of the small fry.

If all this has you thinking that home is no fit place for a child, you might stop and consider that the outdoors isn't much better.

The growing season especially offers many hazards, for even the loveliest garden can be a booby trap. "Please Don't Eat the Daisies" should be taken literally. Many ordinary plants are poisonous—rhododendron, foxglove, elephant ear, mountain laurel, oleander leaves, castor beans, wisteria pods—and the use of garden sprays adds a deadly coating to those plants which aren't.

One of the deadlier elements to which children are particularly susceptible is lead. A high incidence of lead poisoning was found in a Chicago neighborhood where youngsters gathered to watch battery cases being burned and inhaled the fumes.

Other cases of lead poisoning frequently stem from eating paint chips and bits of plaster. One teething tot managed to poison himself by chewing on his crib, newly refinished with lead-based paint by his physician father. For this reason, most children's toys and furnishings produced in the United States are finished with lead-free paints.

Some foreign manufacturers don't follow this practice.

The very commonness of many noxious items increases their danger. We grow careless as we handle them day after day. Some deadly products are in such widespread use that they are recommended for purposes for which they were never intended.

Carbon tetrachloride, fatal if either inhaled or swallowed, was suggested as an oven cleaner by a national woman's magazine. The truth is, points out a New Orleans physician, that working in the confines of an oven with a rag saturated with carbon tetrachloride is courting swift death.

Even in a large room the vapors from this chemical can be highly poisonous. A South Carolina youngster, stretched out on the living room couch, nearly died because her mother was using carbon tetrachloride to clean a chair on the other side of the room. Many toxicologists have condemned its use in the home at all. Yet because of its effectiveness as a cleaner and solvent, it continues to be used as a dry shampoo, upholstery and window blind cleaner.

When it comes to poisons in the home experience isn't always the best teacher. Some children seemingly are poison prone. The number of repeaters in control centers files can be explained no other way. Among such children, the desire to explore with their stomachs overcomes any unpleasant memories of what happened the last time.

The mother of one set of twins found herself repeatedly calling the ambulance for her boys, who liked to dose themselves with moth balls, ant poison, etc. Nothing seemed to help until their father arrived home one day just in time to drive them to the hospital. The boys were bitterly disappointed. It seemed they liked the ambulances and sirens.

Every minute someone calls a poison control center somewhere to ask for help or report a poison mishap. While many of these centers have facilities for treating poison cases, this is not their primary function. The storing of vital information about poisons, antidotes and treatment procedure is. Hundreds of manufacturers are pouring new products for the home onto the market nearly every day; it is obviously impossible for anyone, even experts in toxicology, to keep track of all the hazards.

The poison control center idea was formulated by Dr. Edward Press, a member of the Accident Prevention Committee of the American Academy of Pediatrics. He organized the first center in Chicago in 1953 with the support of state and city health officials, the American Medical Association, the Federal Food and Drug Administration and the National Safety Council.

The plan proved an overwhelming success. Today similar control centers are in operation at more than 470 hospitals throughout the nation. Some are frequently called on for advice from overseas and from ships on the high seas.

The importance of having poisons listed by name on the bottle was illustrated by a little girl who proudly told her mother she had taken the "cold medicine" that was on the dresser. The horrified mother rushed the girl to the hospital, the medicine was actually eye drops. The eye drop bottle contained no label listing harmful ingredients and before they could be learned the little girl died. If doctors had known the poison, they would have had a fighting chance to save her life.

But parents frequently don't read labels and children usually can't. Labeling and control centers are fine in emergencies, but they are no substitute for a little care and shelf rearranging at home.

"From reports that come into the National Clearinghouse," said Henry L. Verhulst, its director, "there is no doubt in my mind that we would see a significant reduction in the number of cases of poisoning if parents would just get conscientious about their handling of home products and medicine.

"The statistics are firm. Between 65 and

70 per cent of all poisonings occur because an item was accessible to a child.

"If we're going to live in modern homes with modern conveniences and modern medicines, we have got to develop some up-to-date standards that will make home safe for our children."

Parents can lessen the danger from accidental poisoning if they'll keep in mind the following suggestions:

1. If you have reason to believe your child has taken a poisonous substance, call your doctor for instructions at once. Don't wait to see what happens.

2. Get the number of the nearest poison control center from your hospital and keep it by the telephone in case you have to learn in a hurry whether a substance is poisonous.

3. Take the suspected poison in its original container with you. This precaution can save your child's life.

4. Never assume a child won't eat or drink something that doesn't taste good. Keep drugs and household cleaners well out of his reach and make sure containers are sealed as tightly as possible.

5. Never transfer toxic materials from original containers; especially never store them in pop bottles, glasses, cups or bowls.

6. Wash contaminated utensils immediately and scrub your child's hands if he touches poisonous material.

7. Never leave a child alone when you're working with cleaners or other poisons.

8. Keep paint and plaster in good repair so a child can't nibble paint chips or plaster bits.

9. Give medicines only in a lighted room, and discard old medicines which are no longer being used.

10. When you throw away hazardous materials, be sure children can't reach the containers.

Program for the Practitioner At AMA Clinical Convention

HOUSTON—A scientific program especially designed for the physician in practice again will be featured at the AMA's Clinical Convention, to be held here November 26-29.

The four-day meeting will include scientific sessions on 18 major topics, four postgraduate courses, breakfast roundtable conferences, closed-circuit television and medical motion picture programs, and more than 150 scientific exhibits.

Of special interest are the postgraduate courses, expanded to four topics: Fluid and Electrolyte Balance, Oncology, Cardiovascular Disease, and Obstetrics and Gynecology. Each course will consist of three half-day sessions featuring outstanding teachers.

Scientific and industrial exhibits and all scientific meetings will be in Houston's new Astro Hall, a part of the Astrodome complex.

Topics at the general scientific sessions include: aerospace medicine, antibiotics, arthritis, cancer, cardiovascular medicine, cardiovascular surgery, dermatology, endocrinology, gastroenterology, general surgery, genitourinary treatment, geriatrics, obstetrics and gynecology, ophthalmology, otolaryngology, pediatrics, and psychiatry. There also will be a session on "new cares" featuring a discussion of legal and social problems now faced by the physician.

Breakfast Roundtable Conferences will discuss (1) Indications and Limitation of Uses of Antibiotics, (2) "The Moral and Ethical Aspects of Caring for the Dying Patient," (3) "Management of Cerebrovascular Insufficiency," and (4) Adolescence, Age of Rebellion; Some Related Psychiatric Aspects." Numbers 1 and 2 will be Tuesday morning, Nov. 28; numbers 3 and 4 will be Wednesday morning, Nov. 29. Tickets will be $3 each.



Let's be specific about Campbell's Soups... and *reducing diets*



There are more than 30 million people in America who are overweight. During the next year, you probably will see more than 1,000 of them in your own practice.

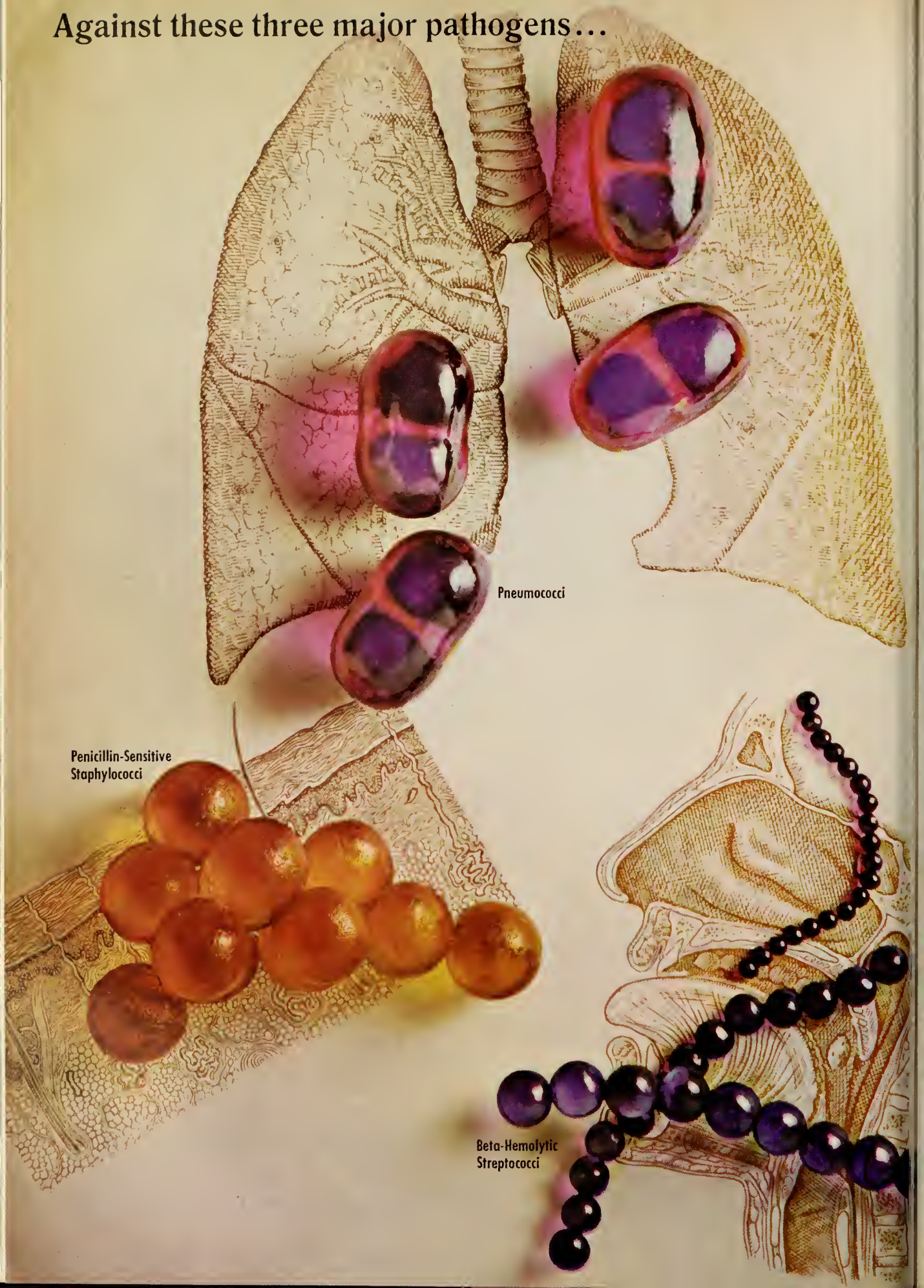
One good way to help these patients is to give them a reducing diet based on ordinary eating patterns.

Campbell has prepared a sensible plan for weight control based on ordinary eating patterns. The plan consists of a patient instruction booklet and a set of menus which provide approximately 1,200 calories daily. The menus are balanced to provide the minimum daily requirements of nutrients.



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V-Cillin K® provides dependable oral antibacterial therapy

because it combines a high degree of activity...

V-Cillin K has been shown to be effective in the treatment of streptococcus and pneumococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy in patients with a history of rheumatic fever or congenital heart disease.

with high blood levels, even when taken with food

V-Cillin K is stable in acid and immediately soluble. High serum levels, therefore, are reached rapidly. Because it is acid stable, V-Cillin K is well absorbed even when taken close to mealtime. These desirable properties help make V-Cillin K a dependable penicillin for oral use.



V-Cillin K® Lilly 701297

Potassium Phenoxymethyl Penicillin

Now available: V-Cillin K®, Pediatric, for Oral Solution, 250 mg. (400,000 units) per 5 cc. of solution.

(See next page for prescribing information.)

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin and in those with bronchial asthma or other allergies. Resuscitative drugs should be readily available for emergency administration. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for relief of immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with l parenteral dosage schedules, frequent evaluation of the renal hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory stu (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth pencillin-insensitive organisms. In such cases, its administration sho be discontinued, and appropriate measures should be taken.

Adverse Reactions: Although serious allergic reactions are much common with administration of oral penicillin than with intramusc forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a sig cant index of sensitization. The following hypersensitivity react associated with the use of penicillin have been reported: skin ras ranging from maculopapular eruptions to exfoliative dermatitis; caria; and reactions resembling serum sickness, including chills, fe edema, arthralgia, and prostration. Severe and often fatal anaphyl has occurred (see Warnings). Hemolytic anemia, leukopenia, thr bocytopenia, and nephropathy are rarely observed side-effects are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cilli Pediatric, the usual dosage ranges from 125 mg. (200,000 units) t times a day to 500 mg. (800,000 units) every four hours. For infc the daily dosage may be 50 mg. per Kg. of body weight divided three doses.

Beta-hemolytic streptococcus infections without associated l terernia may be treated with 200,000 to 400,0000 units three time day. Therapy should be continued for a minimum of ten days to pre development of rheumatic fever and/or other serious complicati Dosage for routine streptococcus prophylaxis in patients with a his of rheumatic fever or congenital heart disease may be 200,000 u once or twice daily. When such patients undergo tonsillectomy, tc extraction, or other minor surgery, the prophylactic dose should 500,000 units every six hours given two days prior to surgery and two days postoperatively. If oral medication is not feasible on the of surgery, parenteral therapy should be considered. Mild to mo ately severe pneumococcus pneumonia has been treated effecti with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be g every six to eight hours in conjunction with indicated surgical pr dures.

For gonorrhea in males, 500 mg. (800,000 units) every four hours three doses may be employed; in females, 500 mg. every four h for six doses are recommended. Refractory infections generally resp to a second treatment three to four days following completion of first. Treatment of gonorrhea with severe complications should individualized, with prolonged and intensive treatment. Patients wi suspected lesion of syphilis should have a dark-field examination fore receiving penicillin and monthly serologic tests for a minimur three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units) bottles of 50 and 100; and 250 mg. (400,0000 units) and 500 (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) 5 cc. of solution, in 40, 80, and 150-cc.-size packages. [032

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

70

Three-Year Program Stimulates Tobacco-Health Research

Is smoking a psychological addiction with deadly overtones or more in the nature of a bad habit?

The best estimate of clinicians and scientists in the field is that cigarets are a health hazard. But they admit they don't have the scientific data yet to establish why and how.

The problem is one that must be answered at the cellular and molecular level. What effect is produced by the molecules that constitute cigaret smoke on the molecules that make up human cells?

For the past three years, wide ranging research into many questions at this level has been sponsored by the Project for Research on Tobacco and Health of the American Medical Association-Education and Research Foundation. But direct and incontrovertible evidence for a cause and effect relationship between smoking and disease—including cancer, respiratory and cardiovascular disease—is difficult to obtain. The answers are probably still years away.

Nevertheless, the program has already met with a degree of success, according to its architects.

Explains Maurice H. Seevers, M. D., Ph. D., chairman of the Committee for Research on Tobacco and Health: "For one thing, the program has helped stimulate an interest in laboratory research on smoking."

In the past research into the effects of smoking has often been retrospective in nature—attempting to correlate certain diseases with smoking patterns on a statistical basis.

There was, however, only spotty interest among scientists in laboratory investigation of the questions posed by the statistics.

Dr. Seevers, professor and chairman of the Department of Pharmacology at the University of Michigan Medical School, said grants provided under the AMA-ERF program are designed to change this by making it possible for scientists to undertake long-range studies.

"Our goal has been to stimulate such interest among established researchers," he said.

The decision to include cardiovascular and respiratory research in the program along with cancer, he explained, was based on the fact that certain respiratory and circulatory diseases show much the same statistical relationship to smoking as cancer, and at the same time are more prevalent than cancer.

The Project for Research on Tobacco and Health was initiated by the AMA House of Delegates as an adjunct to its educational campaign to discourage the use of toxic materials—including tobacco—among young people.

The indictment of cigaret smoking as "a serious health hazard," was restated following the Surgeon General's report citing the statistical relationship between smoking and lung cancer and other diseases.

At that time, however, the AMA delegates made it clear they did not think the report could stand alone. It needed facts to back it up.

They indicated that statistical tabulations alone were not enough to dissuade smokers from their habit. The role of smoking as a causative factor in death and disease—the mechanisms by which tobacco smoke attacks the body and the chemical agents, if any, responsible for the damage—also would have to be defined if any educational campaign were to be successful, they said.

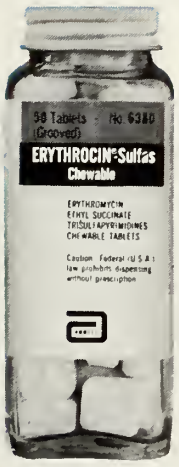
Much of the support for the research project was furnished by the tobacco industry itself, which pledged $10,000,000 over a five-year period. Industry interest was in settling once and for all the question of whether

(Continued on Page 400)



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

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701358

TOBACCO-HEALTH RESEARCH

(Continued from Page 397)

smoking is or is not the cause of certain diseases. Furthermore, the tobacco firms wanted to know if smoking was implicated in disease, was it due to some specific agent or agents in the tobacco which could be removed from the smoke.

As Dr. Seevers explained: "While the medical profession and tobacco industry have somewhat divergent reasons for promoting tobacco research, both are committed to basic scientific research as the best means of developing specific answers to the questions raised by our smoking population."

"Certainly there are no scientific data that would contradict the basic tenets of the Surgeon General's report," he added.

"I believe very few, if any, of the scientists working under this program would advise anyone to smoke. Still we hope that in search for facts, we can retain an open mind."

All grants awarded under the program rest with the AMA-ERF and the research committee headed by Dr. Seevers. Other members of the committee are Drs. Richard J. Bing, professor and chairman of the department of medicine, Wayne State University; Robert J. Hasterlik, professor of medicine at the University of Chicago School of Medicine; John B. Hickam, professor and chairman of the department of internal medicine, Indiana University Medical Center; Paul S. Larson, professor and chairman of the department of pharmacology, Medical College of Virginia, and Paul Kotin, director of the National Environmental Health Science Center, Chapel Hill, N. C.

Goals and guidelines laid down for the awarding of grants are centered on "efforts to encourage and support studies to determine which significant ailments might be caused or aggravated by smoking . . . those mechanisms by which cigaret smoking might affect health . . . and the particular substance or substances in smoke which might be the causal or aggravating agent."

AMA '67 HOUSTON

AMA 21ST CLINICAL CONVENTION • ASTROHALL • HOUSTON, TEXAS • NOVEMBER 26-29, 1967

Plan to attend this year's AMA Clinical Convention in Houston, Texas. Eighteen scientific sessions, four postgraduate courses, breakfast roundtable discussions, color television, and scientific and industrial exhibits will bring you up to date on the latest medical advances. Attend lectures by, and discussions with, our nation's outstanding medical authorities.

Between sessions, enjoy the excellent restaurants, fine shops, visitors' attractions, and mild winter temperatures Houston offers. Mail the enclosed registration and room reservation coupons now, and look forward to an exceptional convention with a holiday plus.

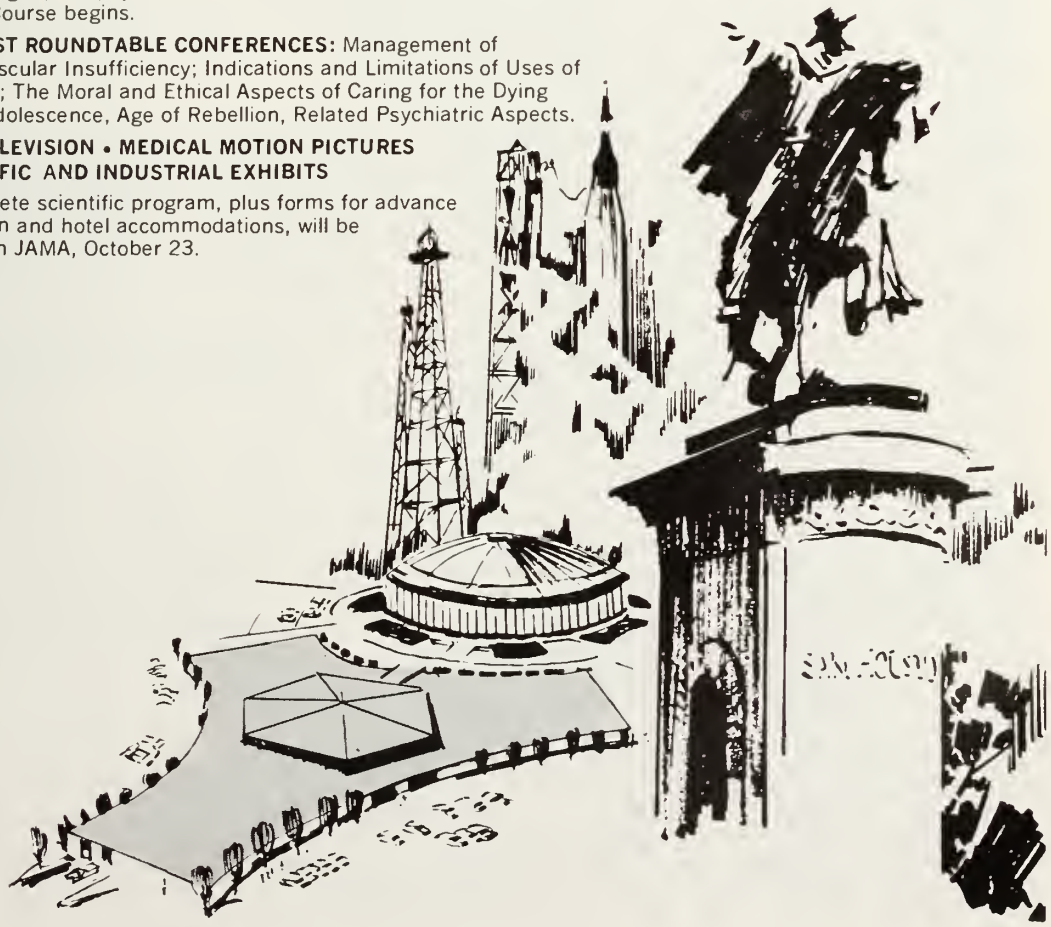
SCIENTIFIC SESSIONS: Cardiovascular Disease; Cardiovascular Surgery; New Cares; Ophthalmology; Geriatrics; Arthritis; Gastroenterology; Cancer; Antibiotics; Endocrinology; General Surgery; Dermatology; Aerospace Medicine; Obstetrics and Gynecology; Psychiatry; Pediatrics; Genitourinary Diseases; and Otolaryngology.

POSTGRADUATE COURSES: Fluid and Electrolyte Balance; Oncology; Cardiovascular Disease; and Obstetrics and Gynecology. Register for these Courses on arrival in Houston at the PG Course Registration booth adjacent to the General Registration area. There is no charge for the Courses, but registration is limited to 200 per Course. The Courses begin promptly at 9 A.M. and 2 P.M. No one will be seated after the Course begins.

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The complete scientific program, plus forms for advance registration and hotel accommodations, will be featured in JAMA, October 23.



AMA '67 HOUSTON

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Just complete coupon and return before Nov. 13, 1967. Your Advance Registration Card will be sent to you on Nov. 16.

☐ **General Registration Plus Breakfast Roundtable Reservations**

Tuesday, Nov. 28, 7-8:30 A.M.

☐ 1. Indications and Limitations of Uses of Antibiotics

☐ 2. The Moral and Ethical Aspects of Caring for the Dying Patient

Wednesday, Nov. 29, 7-8:30 A.M.

☐ 3. Management of Cerebrovascular Insufficiency

☐ 4. Adolescence, Age of Rebellion; Related Psychiatric Aspects

The price of each Breakfast is $3.50. Please indicate choice and return.

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HOUSTON—HOTELS & MOTELS

Map No.	HOTELS	Singles	Doubles	Twins	Suites
1.	HOTEL AMERICA	11.50-17.75	16.85-23.50	20-23.50	50-75
2.	CONTINENTAL HOUSTON MOTOR HOTEL	9-15	12-18	14-19	40-83
3.	LAMAR HOTEL††	9.50-18.50	13-22	14.50-22	35-135
4.	RICE HOTEL††	11.50-16.50	15.50-20.50	17.50-22.50	
5.	SAVOY-FIELD HOTEL††	8-12	10-14	10-14	
6.	SHAMROCK HILTON HOTEL	(HEADQUARTERS HOTEL—NO ROOMS AVAILABLE)			
7.	SHERATON LINCOLN HOTEL	12-16.50	16-20.50	16-20.50	35-50
8.	TEXAS STATE HOTEL††	13.50	10-15.50	12-16	40-65
9.	WARWICK HOTEL	15	18	22	55-80

Map No.	MOTELS	Singles	Doubles	Twins	Suites
10.	GRANT MOTEL*	7.50	8.50	9.50-10.50	
11.	HOLIDAY INN—CENTRAL	11	14	17	
12.	HOUSTONAIRE MOTOR HOTEL	12	15	18	
13.	LAS VEGAS MOTOR HOTEL	9-13.50	12-16.50	14.50-16.50	
14.	RAMADA INN	9.50	11.50	11.50-20.50	33-37.50
15.	ROMAN INN	9-10	12-13	15-16	
16.	SHERITON OAKS INN*	10	12	14	
17.	TIDELANDS MOTOR INN	9-10	13-14	13-16	35
18.	TOWERS MOTOR HOTEL	(CO-HEADQUARTERS HOTEL—NO ROOMS AVAILABLE)			
19.	29 PALMS MOTOR HOTEL*	6.75-7.75	8.75-9.75		
20.	WHITE HOUSE MOTOR HOTEL	9-12	10-12	12-16	

*No restaurant or coffee shop on premises
††No swimming pool
All rooms 100% air-conditioned

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. A brief precautionary statement follows.
Contraindications: Glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal obstruction, or bladder neck obstruction.
Precautions: Use cautiously in the presence of hypertension, hyperthyroidism, coronary artery disease; warn vehicle or machine operators of possible drowsiness.
Usage in Pregnancy: Use cautiously, especially in the first trimester. *Note:* The iodine in isopropamide iodide may alter PBI test results and will suppress I^{131} uptake; discontinue 'Ornade' one week before these tests.
Adverse Reactions: Drowsiness; excessive dryness of nose, throat or mouth; nervousness; insomnia. Other known possible side effects of the individual ingredients: nausea, vomiting, diarrhea, rash, dizziness, fatigue, tightness of chest, abdominal pain, irritability, tachycardia, headache, difficulty in urination. Thrombocytopenia, leukopenia and convulsions have been reported but no causal relationship has been established.

a stuffy nose is no laughing matter



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Each capsule contains 8 mg. of Teldrin® (brand of chlorpheniramine maleate), 50 mg. of phenylpropanolamine hydrochloride, and 2.5 mg. of isopropamide, as the iodide.

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brand of sustained release capsules

each one can give him all-day or all-night relief

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easy does it!

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THE JOURNAL
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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA
Published Under the Auspices of the Board of Censors

Volume 37 October, 1967 No. 4

Cryogenic Stereotactic Thalamotomy For Parkinson's Disease

by

J. Clayton Davie, M. D.*

Birmingham, Alabama

Parkinson's disease, or paralysis agitans, is the most frequent of the so-called extrapyramidal diseases. The classical description was given by James Parkinson in 1817[13] and was attributed to a degenerative process. The clinical features have long been completely described by Parkinson[13], Critchley[5], and Wilson[17].

This disease process is characterized by a triad of symptoms with additional associated manifestations. This triad is tremor, muscular rigidity, and bradykinesia (impairment of movement). The tremor is characteristically a 4-8 per second frequency and rhythmical, beginning in the distal extremities (particularly the fingers and thumbs). The head, neck, tongue, and lips may also be involved. Anxiety and emotion intensify the tremor, and sleep and anesthesia abolish it.

Rigidity in this process is characterized by increased muscle tone in both the extensor and flexor muscles; the latter movements being more severely affected. There is a resistance to passive movement, and due to periods of partial relaxation in muscle tone there develops the classical "Cogwheel rigidity."

Bradykinesia, or "slowness and paucity of movement," is the third aspect. These individuals develop a paucity of movement and a decrease in ability to initiate voluntary motor functions. They become very slow, and there is a tendency to "freeze" during movement or while attempting to initiate movement, such as walking. The associated movements of the head, shoulders, and arms during walking is decreased or lost.

They develop a stooped, or flexed, posture with a tendency to lean forward. Thus a shuffling, forward, propulsive gait is developed. There is impairment in properly initiating and terminating the gait and a definite unsteadiness of gait. This, with the associated tremor and slowness, can be totally incapacitating for the patient to the point

*Associate Professor, Division of Neurosurgery, Department of Surgery, University of Alabama Medical College and Birmingham Veterans Administration Hospital.

that he is unable to write, feed, dress, or care for himself.

In addition, these patients may develop excessive sweating, oily skin, and excessive salivation is not uncommon as well as a masking of facial expressions. The voice becomes weak and reduced in volume as well as loss of the ability to enunciate words properly. They may also develop impairment of intellectual capabilities, impaired memory, inability to concentrate, and emotional lability.

In the United States, during the years 1959-1961, of the 8,674 death certificates which listed Parkinson's disease as the primary underlying cause of death, 84 per cent of these individuals were persons 65 years of age and older[16]. In Alabama, for the years 1959-1961, there was an average of 7.6 deaths per 100,000 population due to Parkinson's disease. It has been estimated that each year approximately one per 4,000 in the total population and one per 1,000 in the age group of 50 years or older develops Parkinson's disease. Williams[16] estimated that there are approximately 300,000 clinical cases of Parkinson's disease currently in the United States and approximately 40,000 new cases develop each year.

It has been judged that the mean age of onset was 30 years for the so-called postencephalitic case, 70 years for the so-called arteriosclerotic group, and 59 years for the idiopathic case.

DeJong[6] indicates that Parkinson's disease is increasing as a cause of death.

Pathology

It is not the purpose of this report to review the problems related to the pathology of the central nervous system in Parkinson's disease. This has been reviewed by numerous authors, and there is considerable overlap in problems concerned with the pathological processes of this disease. Doctors Kenneth Earle[8] and Marion Smith[14], in their pathological studies, have not found a close correlation between arteriosclerosis and paralysis agitans, or Parkinson's disease. It has been stated that neurofibrillary changes appear most common in postencephalitic cases, and that Lewy bodies are most frequent in idiopathic Parkinson's disease; however, there is considerable overlap.

Pathological study of the postencephalitic and idiopathic cases is characterized by severe substantia nigra degeneration, marked gliosis, neurofibrillary changes, and glial scars in the subthalamus nucleus, thalamus, and hypothalamus[2,9]. The idiopathic cases have had moderate substantia nigra and locus caeruleus degeneration, with focal cell loss and gliosis in the substantia nigra and Lewy bodies in the pigmented nuclei. The exact etiology and pathophysiology of this disorder remains unknown, even though there have been pathological correlations with the various types of Parkinson's disease.

Medication

Currently there are numerous drugs used in the therapy of Parkinson's disease. However, it is an extremely difficult problem to obtain objective results with drug therapy. But there is no doubt that some patients are helped considerably for a variable period of time with some of these drugs[7].

It is felt that initially therapy should be medically and relatively well supervised. If a satisfactory response is obtained, this should be continued until such point that no further response is accomplished or there is evidence of progression or significant impairment of function.

In general, most drugs used for the treatment of Parkinson's disease are safe and well tolerated when properly administered. The important aspect is that small dosages should be given initially with this being gradually increased to the maximal level of tolerance. One of the significant complications and factors to consider is the patients with glaucoma. However, if the latter is judiciously managed he should be able to tolerate medications satisfactorily.

The objective effectiveness of drugs in the treatment of this disease remains a question.

Surgery

In selected patients there remains no doubt that a large percentage can be greatly benefited by thalamotomy (used in the broad sense). Stereotactic surgery utilizing the various instruments and techniques in the creation of lesions at varying locations has been performed for a number of years[1,3,4,10,11,12]. The type of stereotactic instrument utilized is of relatively little consequence.

Satisfactory lesions have been created with alcohol, electrolytic lesion, high frequency lesion makers and, more recently, freezing with liquid nitrogen. It is felt by this individual that the utilization of liquid nitrogen (cryogenic technique) has definite advantages which offset any disadvantages.

A major factor is the proper selection of patients. It is generally conceded that stereotactic surgical procedures will benefit the tremor and rigidity greatly and frequently completely ameliorate the tremor. A satisfactory result can be obtained in 80-85 per cent of the cases. The bradykinesia and paucity of motion is benefited considerably less often. Patients who have severe mental involvement and intellectual deterioration represent poor surgical candidates.

The surgical procedure is a relatively safe procedure with little risk of mortality or morbidity. Conservatively, the mortality rate for these procedures is approximately 2-4 per cent with the morbidity rate varying from 5-10 per cent.

Rarely a hemorrhagic lesion may develop or a postoperative hemiplegia. However, with the cryogenic technique it is felt that the latter complication is considerably reduced.

After proper selection and evaluation of the patients this procedure is performed in the operating room under local anesthesia. Preoperatively the patient is counseled and the entire procedure explained to him. It is explained that his cooperation, alertness, and assistance are essential.

Without premedication the patient is brought to the operating theater where a fractional pneumoencephalogram via the lumbar route is performed. Approximately 20-25 cc of air is injected in the subarachnoid space, and flexed and extended lateral skull X-rays are obtained. This outlines the fourth ventricle, aqueduct, third ventricle, and portions of the lateral ventricles. The essential aspect is that the posterior and anterior commissures (Fig. 1) are outlined for purposes of determining the commissural line and intercommissural distance which are necessary for proper location of the target area.



Figure 1: Erect lateral skull x-ray during pneumoencephalogram demonstrating air in the third ventricle, and fourth ventricle, the cerebral aqueduct, and the posterior commissure (PC).

The patient is then placed in the recumbent position and the head immobilized in the Rand-Wells stereotactic head holder by four pin stabilizers (Fig. 2A). The head and head holder, as well as the A-P and lateral



Figure 2A: Represents the patient's head immobilized in the stereotactic head holder.



Figure 2B: Illustrates the small scalp incision with the perforator opening in the skull 2½ cm from the midline at the coronal suture line.

X-ray units, are properly aligned and columnated. A-P and lateral X-rays are obtained and evaluated for position, alignment, and columnation as well as the previously denoted land marks (Fig. 3). This usually requires 2-4 sets of X-rays. During this procedure the instrument is being moved in the proper direction to the preselected target region.

Also during the procedure, with local anesthesia a small burr hole is made 3 cm from the midline and just posterior to the coronal suture line (Fig. 2B) and contralateral to the symptomatic side. The dura is opened and a small area of the cortex is coagulated to allow entrance of the 2 mm liquid nitrogen probe (Fig. 4).

Our target points are usually selected approximately 16-22 mm posterior to the anterior commissure, on or 2 mm below the intercommissural line, and 13-16 mm to the right or left of midline depending on the side in which the lesion is to be created (Fig. 3 & 5). When the target point has been ver-



Figure 3A: Photograph of AP skull x-ray with the head immobilized in the stereotactic instrument and air filling each lateral ventricles (I, II), and the third ventricle (III).



Figure 3B: Lateral brow-up x-ray with air in the lateral ventricles and the third ventricles. The anterior commissure (AC) and posterior commissure (PC) are illustrated and the intercommissural line denoted by hatch line. The target point is illustrated by the ring and crossed lines.

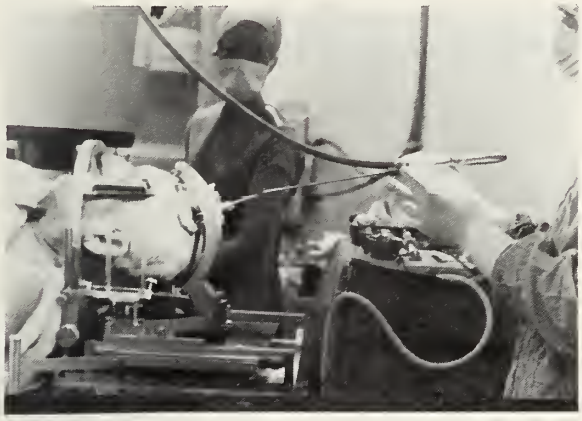


Figure 4: Illustrates the head immobilized in the head holder with the stereotactic guide in position and the cryogenic probe being inserted.

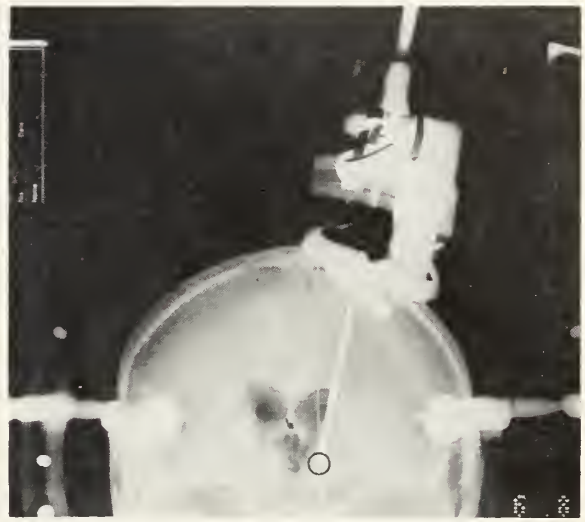
ified and the instrument properly positioned the 2 mm liquid nitrogen probe is inserted with fluoroscope visualization of the probe and target area. At this point A-P and lateral X-rays are obtained verifying the proper position prior to lesion creation (Fig. 5).

Occasionally, with the insertion of the probe, prior to creating the lesion, there will be a dramatic response. The tremor may abate and there may be considerable reduction in the rigidity. During this period, and during the time the lesion is being made, the patient performs a number of tasks with the extremities, as well as talks and responds to questions.

The liquid nitrogen is profused through the insulated probe (last 2 mm uninsulated) at a constant pressure and desired preset temperature which is time recorded.

The probe temperature is initially dropped to 0°C for 3-4 minutes. At this temperature, neurological function will be impaired in the target area without creating a permanent lesion. If adverse effects occur as contralateral weakness, the probe temperature is rewarmed and the target area altered prior to creating a permanent lesion.

The probe tip temperature is then maintained at —50°C to —70°C for 3-6 minutes. During this period of time a cryogenic lesion is made, and the patient is checked continuously for alertness, speech function, strength and function in the contralateral extremities. Even though the tremor may be terminated with insertion of the probe, a 3-4 minute lesion is created. From past experience it is known that removal of the probe without creating a lesion will usually result in the return of the symptomatology.



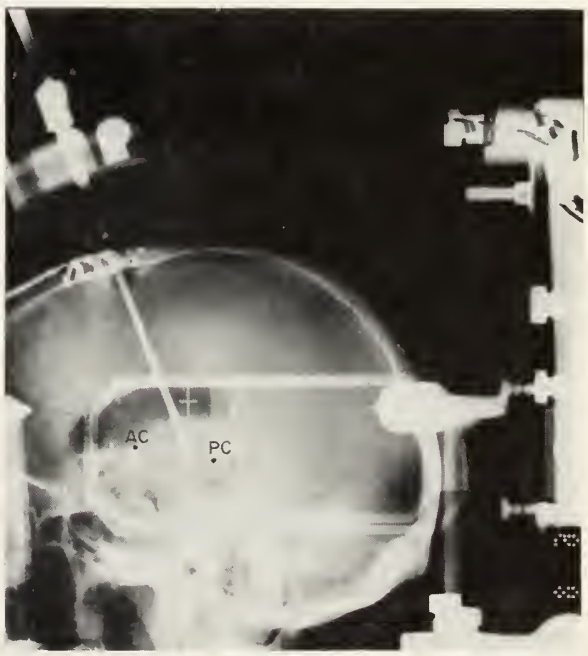


Figure 5: AP and lateral skull x-rays illustrating the cryogenic probe in position and the target points outlined by a black circle in "A" and the ring target point in "B". The black ring in Figure 5A represents approximate size of lesion.

The important aspect of the cryogenic

lesion is that it can be produced slowly, and there is a peripheral area in which the lesion is reversible. In this peripheral margin there may be interruption of neurogenic function as the temperature is lowered without actual destruction. As the peripheral area rewarms function returns.

In view of the fact that these lesions are created in the immediate vicinity or juxtaposed to the internal capsule the above aspect is very important. It is not uncommon with this technique to have the patient develop a drift of the extremity, decreased strength, and extensor toe sign after 3-4 minutes. The freezing is terminated and the temperature allowed to return to normal with return of strength and abolition of extensor toe signs.

Summary

A brief resume of the current problems of therapy in Parkinsonism is presented. The clinical manifestations are reviewed.

The cryogenic stereotactic thalamotomy utilizing liquid nitrogen through a 2 mm probe to create the lesion is likewise reviewed. With this technique we can expect a very good result in the alleviation of tremor and rigidity in over 80 per cent of patients with Parkinson's disease. It is a safe and effective approach to this apparently increasing problem.

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Acute Respiratory Acidosis, Diagnosis and Treatment (Acute Ventilatory Insufficiency, Acute Alveolar Hypoventilation)

D. S. Tysinger, Jr., M. D.

When the carbon dioxide level (PCO2) is elevated and at the same time the PH is low, a state of respiratory acidosis (alveolar hypoventilation, ventilatory insufficiency) is present. Respiratory acidosis, if not too severe and if chronic in nature will be compensated by the renal production of bicarbonate and excretion of chloride so that PH returns to normal. During the period of renal correction of a respiratory acidosis the tubular transport system for sodium, potassium, and hydrogen ion is tied up with hydrogen ion excretion and therefore the potassium will be elevated. The sodium may or may not be lowered. Therefore in an unknown patient with an elevated PCO2 and a low PH, if you have a low chloride, an elevated potassium, and a normal to slightly low sodium, there is probably an uncompensated respiratory acidosis superimposed on a chronic respiratory acidosis. As the PCO2 rises there is a decrease in oxygen saturation, proportionate to the rise in PCO2. In pulmonary disease of any type, there may be an additional ventilation profusion abnormality producing other decreases in oxygen partial pressure in the arterial blood. These causes will not be discussed. The causes have been listed in many different articles. Arterial blood gas studies offer the only means of diagnosis. Respiratory acidosis cannot be diagnosed by a pathologist at the autopsy table. Such specific treatment as antibiotics for specific causes will not be discussed.

THE APPROACHES TO TREATMENT OF ACUTE RESPIRATORY ACIDOSIS Arterial blood should be drawn to determine PH, PO2, and PCO2. A high PCO2 and a PH often as low as 7.0 gives the diagnosis of acute respiratory acidosis. A chest X-ray, portable or otherwise, should be obtained if possible. An electrocardiogram should be done. Sodium, potassium, chloride and BUN will give you some idea as to the patient's electrolyte and osmotic balance. The patient needs reduction in PCO2 and elevation of PH.

Common to all methods of reducing PCO2 is a patent airway. At this point it is assumed that a respirator is to be used. There must be an air tight system, which means either nasotracheal intubation or tracheotomy. No matter which form is chosen, the largest tube possible should be used to cut down on resistance particularly to expiration to maintain efficient ventilation. Intubation is an easier and faster process than tracheotomy. Intubation over good anesthesia with a cuffed endotracheal tube is the method of first choice. Good intubation can be done rapidly by most nurse anesthetists and with a little practice by any physician. Tracheotomies should be done in the operating suites by a surgeon so that complications can be minimized.

Once the nose is bypassed by intubation humidity becomes very important. The nasal

airways of the individual serve the purpose of heating air to body temperature, taking out particles and dust, and 100 per cent humidifying air before it reaches the trachea. With intubation, this warming and humidifying effect is lost and unless replaced must be carried on by the upper airway. This is a source of irritation and drying followed by infection of the upper airway. All air should be 100 per cent humidified whether or not a respirator is used. Humidification systems used must provide enough water to 100 per cent humidify the air at body temperature. All good mainstream nebulizers do this. There are those who feel mainstream nebulization is sufficient. Others feel that heated nebulizers should be used. The many small particles (from .02 to 5 microns) produced by any good nebulizer will give such a large surface area for molecular escape that any air beyond the nebulizer to the lungs at any temperature will have sufficient molecular water to be completely humidified. If there is an advantage to heated nebulization it is not humidity. Rather it would be that with this method the air presented at the tube is both humidified and near body temperature. The patient should also be adequately hydrated. This usually requires about 3 liters of water a day, other than that nebulized. A dehydrated patient will not respond well even with completely humidified air. When the air is completely humidified it is found that the tracheotomies stay surprisingly clean and are easier to maintain.

The patient can no longer cough effectively and eliminate the normal secretions of the lung. The products of the tracheobronchial ciliary escalator which constantly run toward the mouth must be suctioned out periodically. The only acceptable method is with a sterile catheter used once with sterile instruments and or gloves and a Y tube to control suction. The sterile catheter is only put down the airway once. The airway is suctioned out and the catheter then taken away, completely sterilized, and returned sterile for its next use. The catheter should not be used but once. A magic bottle sterilization technique used to rinse catheters in before they go down is inefficient and gives a false sense of security and contributes to the infected, raw, bleeding secretions produced in intubated patients.

The next problem is the respirator. All tubings and nebulizers should be completely changed and sterilized every 12 to 24 hours. The patient must cooperate with the respirator. If the patient is unconscious there is at this point little problem. If the patient fights the respirator, by this we mean, does not follow the respirator but breathes against it, getting inefficient ventilation then he should be either sedated or given a curari like drug. Sedating the patient depresses the respiratory center which already is partially responsible for inefficient ventilation. With the higher CO2, increased sedation will help put the patient into apnea. If the patient is conscious and fighting the respirator and if a curari like drug is to be used it is most important to explain that he is going to be paralyzed. If a curari like drug is used in the unconscious patient, it is imperative as consciousness returns for some one to explain that this is due to treatment to allay his apprehension. Some form of sedation may have to be used in this type patient. The barbiturates probably should not be used. Other forms of tranquilization are better. Once the patient is put on a respirator he should have constant aid and attendance.

The next point is to make sure the respirator is effective. This can be done first by observing the patient, the movement of the abdomen, and the movement of the anterior and lateral chest cage. The nurses in attendance, as well as the physicians, should be taught to listen for breath sounds, anterior, lateral, and particularly posterior at the bases. An effective respirator should give good breath sounds all over. An endobronchial intubation will not appear obvious to vision, but on auscultation can be picked up by a lack of breath sounds on one side or to one lobe. Most commonly the right upper lobe is blocked with this type of intubation. If such occurs the endotracheal tube or

tracheotomy tube should be slipped back slightly until good breath sounds are heard throughout. The chest should continually be observed along with the abdomen, and breath sounds checked frequently. Checks on volume delivered by measurement usually on the expiratory side helps. Everyone using pressure equipment should be able to picture the flow curve from the pressure manometer by watching the needle. The curve of inefficient ventilation is one that rises rapidly to a peak and drops rapidly, or one that does just the opposite that slowly increases over an extended period of time; the rate being too slow and volume moved low. The ideal curve is one in which the needle rises rapidly to about a third the pressure set and then a slower rise to peak pressure followed by rapid return to zero. To evaluate the effectiveness of treatment there is no substitute for frequent checking of arterial PO2, PCO2, and PH. Checks every 15 to 30 minutes should be carried out in the early period of treatment. An intra arterial catheter for sampling which can be hooked to a manometer and give continuous check of blood pressure may be helpful.

Rapid changes of PCO2 in respiratory acidosis will frequently cause greater changes in the PH of the cerebral spinal fluid. The effects on brain and cerebral circulation, if changes occur too rapidly, may cause convulsions and death. With highly successful efforts the PH can be quite rapidly moved from 7.0 to 7.6 or more. Therefore our desire is to return PH and PCO2 to normal but not to over shoot. The rule of thumb is not to correct PH to greater than 7.45. There are several different techniques combining respirators and medications currently in use, all reporting good results. No one at this point can say that one is better than the other. They increase the speed of correction apparently without getting into too great difficulty. The first of these is to use intravenous carbonic anhydrase inhibitors to get rid of sodium bicarbonate as you ventilate the CO2 with the respirator. Thus preventing the wide fluctuations that push the PH too high. A second technique has been the use of Thame buffer. (Before using this product one should be familiar with the precautions.) A third method is giving intravenous sodium bicarbonate. Intravenous sodium bicarbonate in essence is the natural buffer of the PCO2 which is in excess. In extremely low PH's this does rapidly counter the acidotic effect of the retained PCO2 where the kidney cannot produce bicarbonate fast enough. Later, as the patient is ventilated, the kidney can excrete the excess bicarbonate. These methods combined with respirators can increase the rate at which PH can be safely returned to normal.

Most individuals in acute respiratory acidosis have some degree of desaturation of arterial blood. Most investigators in this field agree that sufficient oxygen should be given to keep the PO2 between 80 and 95 mmHg., which is 95 to 97 per cent saturation of the hemoglobin. Oxygen levels above this can cause considerable trouble. When assisting ventilation with a respirator, high oxygen pressures may cause apnea. It causes vasoconstriction in the brain and if combined with rapid drops in molecular CO2 by the resuscitation effort which also causes vasoconstriction can produce severe cerebral vasospasm with retention of the lactates, etc. from metabolism and a decrease in oxygenation due to reduced circulation with possible dangerous consequences. Oxygen concentrations in inspired air of 28 to 30 per cent are all that is needed except in shock where 100 per cent should be used. It is hard in shock to adequately oxygenate even using 100 per cent oxygen. The effects of oxygen on the lung will be discussed later.

The patient on a respirator, when possible, should be turned frequently, about every 15 to 30 minutes. Some form of artificial sighing either with a handbag respirator or by holding the pressure on until it peaks out should be used to completely inflate the lung every 15 minutes. The average respirator will tend to ventilate the same small areas repeatedly, thus causing poor ventilation and

atelectasis in the other areas of the lungs if sighing is not done.

The two bronchodilator drugs in common use in pulmonary disease are Racemic Epinephrine in a 2.25 per cent solution and Isoproterenol in a 1:100 or 1:200 solution. These drugs act differently. When working with a respirator as we are here, we are faced with bronchospasm and peribronchial edema. Isoproterenol is a drug that is picked up poorly across the peribronchial mucous membrane. Its main action is to reduce bronchospasm. To be effective on these muscles the nebulization of Isoproterenol into the bronchial tubes has to be moved through the peribronchial and interstitial tissues to get to the muscular layer. Isoproterenol usually is picked up through the oral mucosa not through the peribronchial mucous membrane. It must be transported through the heart, out through the bronchial arteries to the bronchial musculature to be effective. It is the most effective bronchodilator we have. Isoproterenol, on the other hand, causes peripheral vasodilatation. Generally, in these situations where we have peribronchial edema to begin with, it causes a reduction in bronchospasm but in return it causes an increase in peribronchial engorgement. The patient on the respirator is going to need frequent and repeated doses. Elevated PCO2 and Isoproterenol are both vasodilators with the potential to produce shock. This is different from septic or endotoxic shock where Isoproterenol is an effective drug. Another dangerous property of Isoproterenol is that in large doses it causes focal necrosis in the myocardium. In using Isoproterenol a blood level must be established for it to be effective.

Racemic Epinephrine has very little effect on bronchospasm as such, however it is picked up across the peribronchial mucous membrane and does reduce peribronchial edema. It is a vasoconstrictor and can be used with the respirators, two to three drops every 15 to 30 minutes nebulized in solution into the lungs without producing sufficient blood levels to be measured. Therefore without establishing a blood titer we can effectively counter peribronchial edema. The ideal combination is to use a little Isoproterenol 1:100, two to three drops under the tongue every three to four hours for the bronchospastic element, and to use Racemic Epinephrine 2.25 per cent solution in the nebulizer two to three drops every 15 to 30 minutes to keep down peribronchial edema.

The respiratory stimulants (which are central nervous system stimulants) are vanillic acid, (Emivan) and doxapram hydrochloride (Dopram). They do increase depth of respiration by increasing breathing muscular effort. Intravenous drip of stimulants combined with oxygen 25 to 30 per cent concentration (1 to 2 L/min of 02 by nasal-catheter) may be effective without respirators, particularly in milder problems. In the individual who is on a respirator (patient following) stimulants can also be used as an adjunct with the respirator. They do increase muscle effort, therefore they increase oxygen consumption and CO2 production. Whether their use should be continued in a patient is dependent on whether there is a rise in PH and a fall in PCO2. If their usage produced a drop in PCO2 and an increase in PH, you may be able to treat a patient without having to go to respirators. It may help in the pressure cycled respirator patients to get a necessary increase in breathing. Intravenous aminophylline is and can be effective. Aminophylline used in a nebulizer about 12½ mgm. per cc. is an effective aid in bronchospasm and peribronchial edema and may be used intermittently.

Expectorants in sufficient quantity are a help to loosening secretions, etc. Ammonium chloride and iodides can be given intravenously. In the acidotic state ammonium chloride is not recommended. However it can be used effectively with a carbonic anhydrase inhibitor and respirators to try to raise chlorides as bicarbonate goes down and PCO2 goes down.

The patient is now under good treatment and by one or a combination of the described

techniques the low PH and the high PCO2 are being corrected, a PO2 between 80 and 100 mmHg. is being maintained. The basic cause is being treated.

There are other things that must be considered. There are baroreceptors in the chest which are stimulated by pressures produced by respirators, particularly when they are used continuously. They stimulate the output by the anterior hypothalamus and pituitary of anti-diuretic hormone with water holding. Secondary to this is a drop in osmotic concentration in the blood due to the increased fluid. This stimulates the juxta glomerular apparatus with a production of renin which acts with an alpha two globulin in the liver to produce angiotensin which stimulates the adrenal cortex to put out aldosterone. The only good blocking agent of anti-diuretic hormone is ethyl alcohol. There is an aldosterone blocking agent on the market. In the handling of this type patient where fluid volume is a problem diuretics should be used meticulously. The aldosterone blocking agents and carbonic anhydrase inhibitors, probably are more physiologic and safer than those that act primarily on chloride excretion. Diuretic agents such as Manitol, Dextran, and Edercrine with their unpredictable electrolyte losses should be used with extreme caution.

There are other procedures that can be added. Monitoring of the central venous pressure can be done quite adequately with disposable equipment. With a catheter in place in the superior vena cava and with frequent checks on blood pressure you have a good idea of what the patient's circulatory status is. A close eye should be kept on the patient's fluid volume. The best way to do this is to weigh the patient daily if possible. This is usually impossible. Therefore monitor central venous pressure, blood pressure and hourly urine output. If tissue perfusion goes down, so does urinary output. If fluid volume gets low, urine output goes down. You should try to maintain a 20 cc. or better hourly urine flow. The central venous pressure should be kept at about 7 cm. water. As effective circulating fluid volume gets low the venous pressure will go down. With heart strain and failure, our central venous pressure will go up. In this instance there is trouble with pulmonary ventilation and circulation both. To evaluate circulating fluid volumes measurement of the hemoglobin, hematocrit, and total serum protein will give an idea of dilution or concentration. If there is an increase in total serum protein and hemoglobin and hematocrit, a drop in central venous pressure and a decrease in urinary output, there is evidence of hypovolemia. At the same time you should measure the sodium, potassium, chloride, and BUN. If when the signs of hypovolemia previously mentioned are seen and the sodium, potassium, and chloride are also low you know you have a decrease in osmotic pressure of the remaining circulating fluid volume. If they go up, then you know the loss has been primarily water with hemoconcentration. If in over zealous hydration of the patient the central venous pressure rises the total serum protein, hemoglobin, and hematocrit go down. Then you have an over hydrated or hypervolemic patient and here again by checking the sodium, potassium, and chloride you have some idea as to whether they are increased with a hyperosmotic hypervolemia or whether they are decreased with a hypervolemic hyposmotic state. These will direct you as to how you must treat the patient, whether he needs water given or restricted or whether he needs electrolytes given. Should you begin to get sudden rises in central venous pressure, particularly over 12-14, you should consider digitalizing the patient. Digitalis is the only drug that increases the efficiency of the myocardium without increasing its oxygen consumption. The alpha and beta myometic drugs that increase cardiac output also increase oxygen consumption at the same time. If the acidotic patient is to be digitalized, the sodium, potassium, and chlorides should be checked and considered before digitalization to prevent trouble. Adequate monitoring of the patient

is mandatory. An acute pulmonary care unit is built around these techniques.

In the individual with lung disease you can get some idea of pulmonary shunting by running the respirator on 100 per cent oxygen for 15 minutes and checking arterial PO2. In so doing we raise the oxygen saturation in the lungs to barometric pressure minus humidity, carbon dioxide, and what remaining nitrogen is present, and the 30 mm. gradient between alveoli and capillary. It does decrease membrane diffusion difficulties so that arterial oxygen pressures around 600 mmHg. or slightly better should be obtained. At the end of the 15 minutes draw an arterial specimen and check it immediately for PO2 as shunts increase PO2 drops below 600 mmHg. Blood with these high pressures kept on ice will lose about 30 mmHg. oxygen pressure per minute from the time drawn until run. Below 300 mmHg. the loss is slower.

There is evidence to suggest that the stiff lungs seen in patients after a period of resuscitation attempts, anesthesia, etc. that require extremely high pressures to effectively ventilate, are man made. High oxygen concentration in the lungs causes lymph stasis with fluid engorgement, causes vasoconstriction which in turn tends to increase tissue lactate, carbon dioxide, levels, etc., and causes bronchospasm. Oxygen causes thickening of the pulmonary secretions, stasis of movement of the pulmonary secretions by the ciliary mucous escalator. Prolonged use of oxygen causes alveolar capillary membrane disease, and peribronchial edema. High flow rates with high pressures as some time used in hand bagging of a patient and some volume cycled respirators cause bronchospasm and the pressures cause irritation. There is also with these fast and heavy attempts a decrease in the left heart output, pulmonary venous congestion with increased stiffening and restriction. Poor humidity which is lowest when hand bagging the apneic patients with oxygen increases drying of the airway secretions, drying of the mucous membrane and peribronchial edema. Over zealous tracheobronchial suction with half hearted sterilization techniques of suction catheters produces bleeding and infection. Heavy use of Isoproterenol causes vasodilatation and submucosal engorgement and increase in stiffness. All of these over zealous and impatient techniques to normally compliant lungs can, over a period, produce stiff noncomplaint lungs that are very hard to ventilate, and may in the unhealthy patient be quite fatal.

The lungs are very tender and delicate organs, made up of very sensitive tissue and operate in a most meticulous and sensitive balance mechanism. They were made for handling with kid gloves, not to be pushed around by bulldozers.

Why Women Live Longer

The difference in life expectancy of women and men may continue to increase and eventually become as high as 10 years, according to Dr. Harry Sobel, chief of aging research at the Veterans Administration Hospital, Sepulveda, Calif. "Environmental factors probably are responsible for the discrepancy between longevity of men and women," he said. "It has been suggested that women have biological and constitutional endowments which are superior to men. Nevertheless, it cannot be disputed, men are exposed to noxious environments much more than women, and it is even possible that they are genetically more susceptible to the environment than women," Dr. Sobel said. Men are more exposed to adverse environmental factors than women, by virtue of manual occupations, daring, "chivalry," and similar social factors.—*Geriatrics*, January, p. 102.

Student Health and Student Health Problems

by

Luther Davis, Jr., M. D., F. A. C. S.

Student Health Service

University, Alabama

After a considerable number of years in the private practice of medicine, in June 1966, I joined the medical staff of the University of Alabama Student Health Service. In such a position I have had the opportunity to be associated with capable, interested physicians, nurses, and all of the technical help you would wish. A physician in private practice is not necessarily interested in medically minor, but environmentally or academically important problems that confront students. For this reason, I would like to present some of the ideas, goals, and problems presented by a student health service.

With the continued growth of our colleges and universities it is reasonable to assume that student health in all of its facets will become a major influence on the practice of medicine. The congregation of thousands of young adults within stated boundaries, usually in towns or cities not equipped for massive influx of new persons, makes it imperative for these institutions to provide adequate facilities for the health of their students. The physicians in private practice near large colleges and universities are fully capable of providing adequate medical care, especially for major illness or surgery, but to congest the private physician's offices with the minor ills, minor injuries, examinations and excuses is not consistent with adequate medical care. The Student Health Service attempts to be parent, advisor, doctor, nurse, and to a large degree a preventive medical center for the entire institution. Infectious and communicable diseases are isolated from the student body. Students requiring special diets, routine innoculation, allergy injections, repeated blood tests, (diabetes, anemia, student taking new drugs requiring weekly blood counts, etc.), and periodic examination of the food handlers at the various fraternity, sorority, and dormitory dining halls, supervision of garbage collection and disposal, physical examinations and the other needs of athletes all make up some of the opportunities afforded by a good student health service.

There are some diseases, injuries and minor mishaps that are more familiar to the student health physician than to a physician in private practice. One in particular should be mentioned here. Infectious mononucleosis is primarily a disease of young adults. It is seen in the armed services, colleges, universities and other areas where large numbers of young adults are congregated. Let me say now, it is not a "kissing disease." Only on rare instances are roommates infected or boy friends and girl friends affected, sisters or brothers, and now that so many young married students are attending the universities it is rare indeed to find a husband and wife both affected with same disease. Student health physicians recognize this, but the students themselves seem to be a little reluctant to accept this. When they become aware of a friend or a date or dormitory mate having infectious mononucleosis they become disturbed and immediately seek help and seek some form of prevention that we all know is not available. The great majority of physicians in private practice also are not as well informed on this as those who work

with a large student body. At the University of Alabama we will see 150 to 200 cases of proven infectious mononucleosis every school year, and have come to know the disease, its course, and its prognosis. A typical case of infectious mononucleosis in a student usually results in the following: The student enters the clinic with a sore throat of two or three days duration, fever 101 to 103, general malaise, cervical glands and the tonsil areas covered with a yellowish exudate. His white count varies between 5,000 to 11,000 with an increase in lymphocytes and the appearance of four to twenty per cent atypical lymphocytes in a direct smear. Within four to six days he is afebrile and at this time the rapid slide test usually is positive. The student is allowed to go to class as soon as he is afebrile, but is advised to return to the infirmary after class for a few days. A goodly number of these students call home. Their parents inform their family physician and he insists that the patient be put to bed, and more often than we like to admit, recommends that the student be withdrawn from school for the remainder of the semester. This is not necessary. It creates a burden on the student and is economically unsound. After the student is afebrile we consider him able to be up and about and do as much as his own feelings tell him. Generally speaking, infectious mononucleosis patients are acutely ill several days followed by a week or ten days of lassitude, easily fatigued, with a poor appetite, but he is able to concentrate and pursue his studies. We feel also that students that continue to complain after four to six weeks have been unduly influenced or are seeking a crutch for their poor attitude or progress in school. At the present time we have no specific treatment for infectious mononucleosis, but in those that appear more severe with fever and more swelling of the cervical glands the steroids have proved of value in reducing the stay in the hospital. We have yet to see any complications from early ambulation. Mind you, there are more stubborn cases, but this is by far the exception to the rule.

Inasmuch as the colleges and universities of Alabama are gradually enlarging, their respective health services must also continue to enlarge. In such a situation there must be a continuing liaison between private physicians and those entrusted with the student health. Only in the very large universities and those closely connected with medical schools is there a place for full medical coverage, but in the various majority of schools a satisfactory health service must be available. Students are away from home, a goodly number of them for their first time. They come across problems concerning their health that need answers and understanding. Students become more alarmed about a wart, mole or peculiar rash and many many seemingly trivial problems, but to them they represent major problems, and since their parents are not around they seek advice and reassurance. Certainly it seems that we, the medical profession, should furnish these answers, and not leave this advice and reassurance to uninformed lay persons.

Students away from home without parental support or nearness, feeling for the first time responsibility for their health and future, sometimes find it tough going and it is this student that needs help, reassurance, and support. This can best be provided by a centralized student health service at a reasonable and economical cost. For this reason it is mandatory that all students have a thorough and accurate pre-entrance examination. Not just the height, weight, blood pressure, but a more intimate critical appraisal done by their own family physician. History of allergies or rheumatic fever or injuries or operations with their results are important. It is appalling the number of students that come to the clinic with history of migraine headache and no mention of the same on their examination, of knee injuries, of sensitivity to medication, with no mention of such, of X-rays with the positive diagnosis of ulcer, and yet no mention of this on their pre-entrance examination. Students present

letters from their physicians asking "they be excused from physical training or be allowed an automobile on the campus" with such reasons as "I consider it to the students advantage. The student had infectious mononucleosis a year previous to admission," or "the parents of this child are good friends of mine and any consideration you can give would be appreciated." I was in private practice in Tuscaloosa for 30 years before joining the University of Alabama Student Health Service, and recognize the pressures exerted by parents, and it is difficult for me to admit, but some "of my own pigeons have come home to roost." I have had the opportunity to occasionally see a recommendation or excuse that I had written while in private practice, some of them are hard for me to "swallow."

Let me re-emphasize the importance of the pre-entrance physical examination. It is not an examination to keep students out of the University, but it is an instrument to help students remain in the University. It is valuable to us as an aid in understanding students and give the student a better chance to have adequate and better medical attention. The University has many handicapped students, handicapped by residuals from serious illness, by chronic disease, by birth injuries, emotional upsets, and severe injuries. For them to receive good care makes it imperative that the physician treating them have as much knowledge of previous medical attention and idiosyncrasies as possible.

It is not the intent nor the desire of the Student Health physician to usurp treatment of a private physician's patient, but to be an agent to afford continuing care to these students that need the same. The cost of college education is a major item in family budgets and to provide continuing care while away from the home it is deemed reasonable to use the facilities available at the universities. With the cooperation of the family physician this can be accomplished with a minimum of added expense while the students are away from their homes. A student with a mild enteritis, upper respiratory infection, or any condition requiring that they stay in bed or close to bed, not being able to stay at their home, are put to bed in the infirmary, given medication and diet necessary and returned to their classes in a minimum of time.

There are certain fundamental concepts concerning student health that should be kept in mind. College students are on the threshold of complete maturity and should be looking forward to undertaking the sole responsibility of their future. As we all know, there are many problems, temptations and unforeseen situations that confront these young adults, calling for mature and responsible guidance. Thus, the Student Health Service attempts by educating the students concerning their physical health, guiding them through an emotional or frustrating crisis, and in general trying to answer their questions concerning health and related subjects in such a way it will leave the student with a respect for the medical profession. The student health service has as one of its goals to diligently inform itself of the many other organizations, associations, and individuals which we have found active in University affairs. Henry B. Bruyn, M. D., President of the American College Health Association in his Presidential Address, referred to a remark of Honorable Mark Hatfield, Governor of Oregon, which he aptly applied the title "Hatfield's Law." I quote, "If there is an unmet need or problem in the field of health for which the trained, experienced, expert, and competent available health professional does not provide the answer, then inexperienced, untrained, non-professional individuals will step forward into action rapidly and take on the responsibility of leadership." [1] A strong well balanced student health service is the logical professional agency to take the leadership as concerned college students and it should not be left to administrative officials untrained in medical

1. President's Address. 44th Annual Meeting, American College Health Assn. Henry B. Bruyn, M. D.

fields. There is no need for me to remind all members of the medical profession of the many areas of medicine and help that by our own lackadaisical attitudes have been usurped by non professionals.

Let me describe in closing the Student Health Service of the University of Alabama, as I am more familiar with it than others. The Center is located in the old Druid City Hospital building on the campus in Tuscaloosa, Alabama. There is a well organized out-patient service with adequate registered nurses on duty, a clinical laboratory with registered technicians, an X-ray department with registered technicians, and a qualified radiologist on part-time duty. There are six physicians on full time, a clinical psychologist and a psychiatrist on part-time, and a consultant staff of qualified specialists practicing in Tuscaloosa. These consultants represent all of the specialty branches of medicine, e. g. Radiology, General Surgery, Neurosurgery, Orthopedics, Urology, Internal Medicine, Dermatology, Oral Surgery, Ophthalmology, Otolaryngology. There is a well-equipped infirmary of 50 beds staffed around the clock with nurses, a qualified dietary department, and a full time registered sanitarian with the police powers of the County Health Department. The out-patient clinic is open from 8 a. m. to 6 p. m. with a physician on call 24 hours a day. Students are entitled to this at no cost, except for the higher priced specialty drugs. Infirmary patients are restricted to those with minor ills, infectious diseases, injuries, post operative convalescence (usually from the Druid City Hospital) for an unlimited number of days at no cost other than their regular student fees. It is well organized and the personnel are interested in the welfare of the students, and for this reason the parents of students at the University of Alabama should be more than pleased that their children can be given adequate and personal medical attention.

Low Back Pain Can Be Helped

Oh, my aching back!

How often have you heard someone say that? Or said it yourself?

Backache is such a common ailment among civilized man that there are very few adults who haven't had a touch of it now and then.

Some physicians credit soft beds, soft chairs and other comforts of modern civilization with an increase in the number of persons who suffer from low back pain, says *Today's Health*, the magazine of the American Medical Association.

Once called lumbago, back pain is often caused by poor posture, obesity, ill-fitting or inappropriate shoes, a sedentary life, overly strenuous work, or participating in sports. It may also be due to disease not directly relating to the back or to injury or strain.

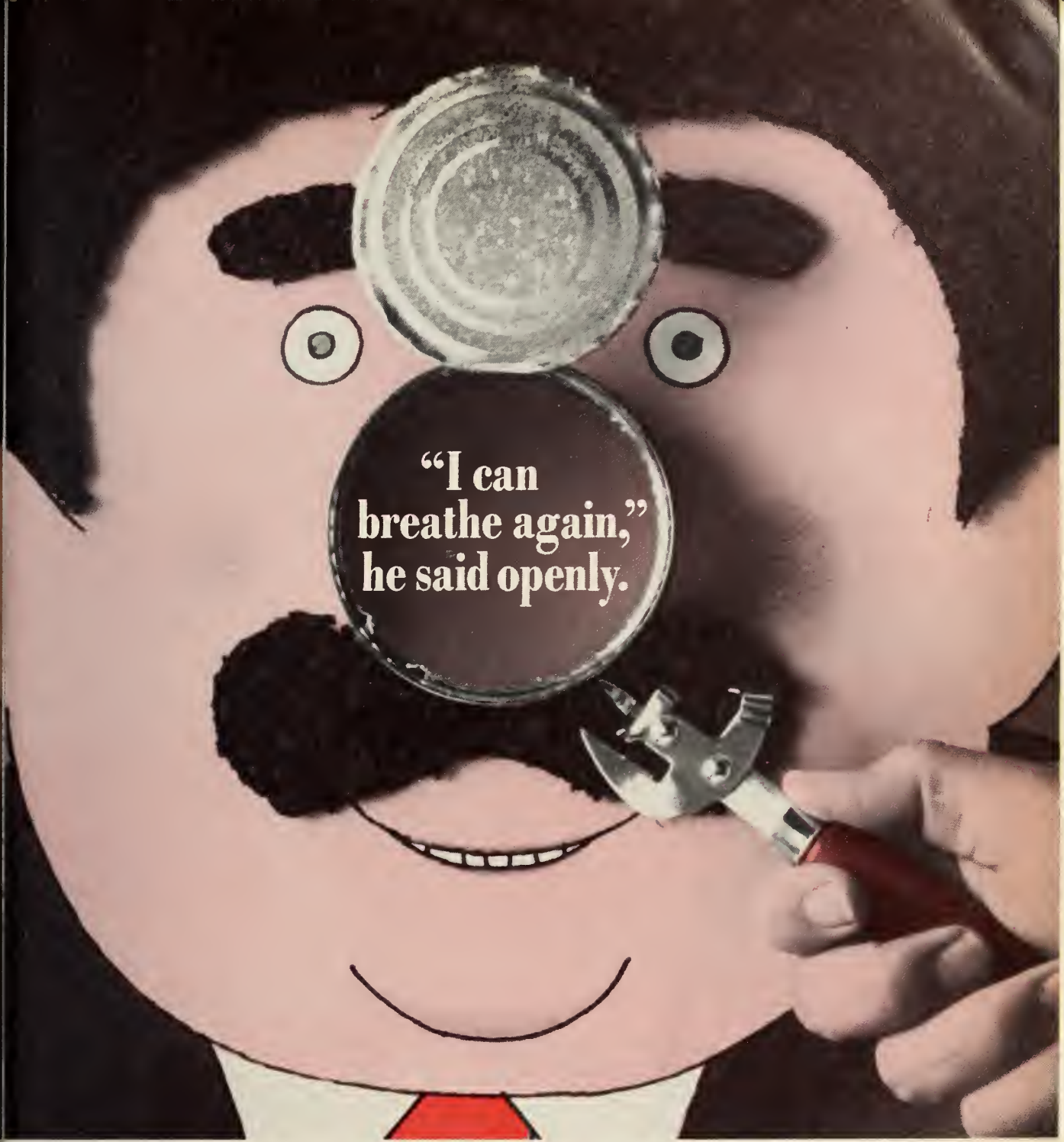
Low back pain may occur at any age but it seems to bother middle-aged persons most. It occurs in both sexes and in all races, and is more common among people who do work that requires stooping or lifting.

Good posture of the entire body is important in preventing low back pain. Sit with the head, shoulders and trunk erect. When standing, the spine should be straight. Not the military "ramrod" posture, but straight.

A soft, saggy bed and low, soft chairs contribute to backache. Chairs, ideally, should be firm, straight and have the contour of a normal back.

A low-heeled shoe is best for standing or walking. High-heeled shoes tend to throw the posture off balance and increase strain on the lower back. Loafers, ballet slippers and sneakers also may lead to backache if worn extensively.

In lifting heavy objects, keep the back straight and lift with knees and thigh muscles, rather than bending over and straining the spine.



in sinusitis, colds, U. R. I.

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Contraindications: Hypersensitivity to antihistamines. Not recommended for use during pregnancy. **Precautions:** Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. **Side Effects:** Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered. A. H. ROBINS COMPANY, Richmond, Virginia 23220
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Preludin is indicated only as an anorectic agent in the treatment of obesity. It may be used in simple obesity and in obesity complicated by diabetes, moderate hypertension, or pregnancy. For use in pregnancy, see Warning.

Dosage: One 25 mg. tablet b.i.d. or t.i.d. Or one 75 mg. Endurets® prolonged-action tablet a day, taken by midmorning.
Contraindications: Severe coronary artery disease, hyperthyroidism, severe hypertension, nervous instability, and agitated prepsychotic states. Do not use with other CNS stimulants, including MAO inhibitors.



Warning: Do not use during first trimester of pregnancy unless potential benefits outweigh possible risks. There have been clinical reports of congenital malformation, but causal relationship has not been proved. Animal teratogenic studies have been inconclusive.
Precautions: Use with caution in moderate hypertension and cardiac decompensation. Cases involving abuse of or dependence on phenmetrazine hydrochloride have been reported. In general, these cases were characterized by excessive consumption of the drug for its central stimulant effect, and have resulted in a psychotic illness manifested by restlessness, mood or behavior changes, hallucinations, or delusions. Do not exceed recommended dosage.
Side Effects: Dryness or unpleasant taste in the mouth, urticaria, overstimulation, insomnia, urinary frequency or nocturia, dizziness, nausea, or headache. (B)R46-560-A

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even in ulcerative colitis...

characterized by:
—diarrhea, cramps, tenesmus
—bloody, mucoid, purulent stools



LOMOTIL® tablets/liquid

Each tablet and each 5 cc. of liquid contains:
diphenoxylate hydrochloride 2.5 mg.
(Warning: May be habit forming)
atropine sulfate 0.025 mg.

controls diarrhea

In six published studies[1-6] detailed results are given on the use of Lomotil in 111 patients with chronic ulcerative colitis. They show that Lomotil gave satisfactory to "excellent" control of diarrhea in more than two-thirds of these patients. As the disorder advances and destroys bowel musculature, the motility-lowering action of Lomotil, understandably, has less effect.

The successful use of Lomotil in a disorder as exceedingly difficult to treat as moderate ulcerative colitis emphasizes again its unsurpassed antidiarrheal effectiveness in these more common conditions:

- **Gastroenteritis**
- **Acute infections**
- **Spastic colon**
- **Drug induced diarrhea**
- **Functional hypermotility**

For correct therapeutic effect
Rx correct therapeutic dosage

Dosage: The recommended initial daily dosages, given in divided doses until diarrhea is controlled, are:

Children: Total Daily Dosage

3-6 mo. . . ½ tsp.* t.i.d. (3 mg.)
6-12 mo. . ½ tsp. q.i.d. (4 mg.)
1-2 yr. . . . ½ tsp. 5 times daily (5 mg.)
2-5 yr. . . . 1 tsp. t.i.d. (6 mg.)
5-8 yr. . . . 1 tsp. q.i.d. (8 mg.)
8-12 yr. . . 1 tsp. 5 times daily (10 mg.)
Adults: 2 tsp. 5 times daily (20 mg.) or 2 tablets q.i.d.

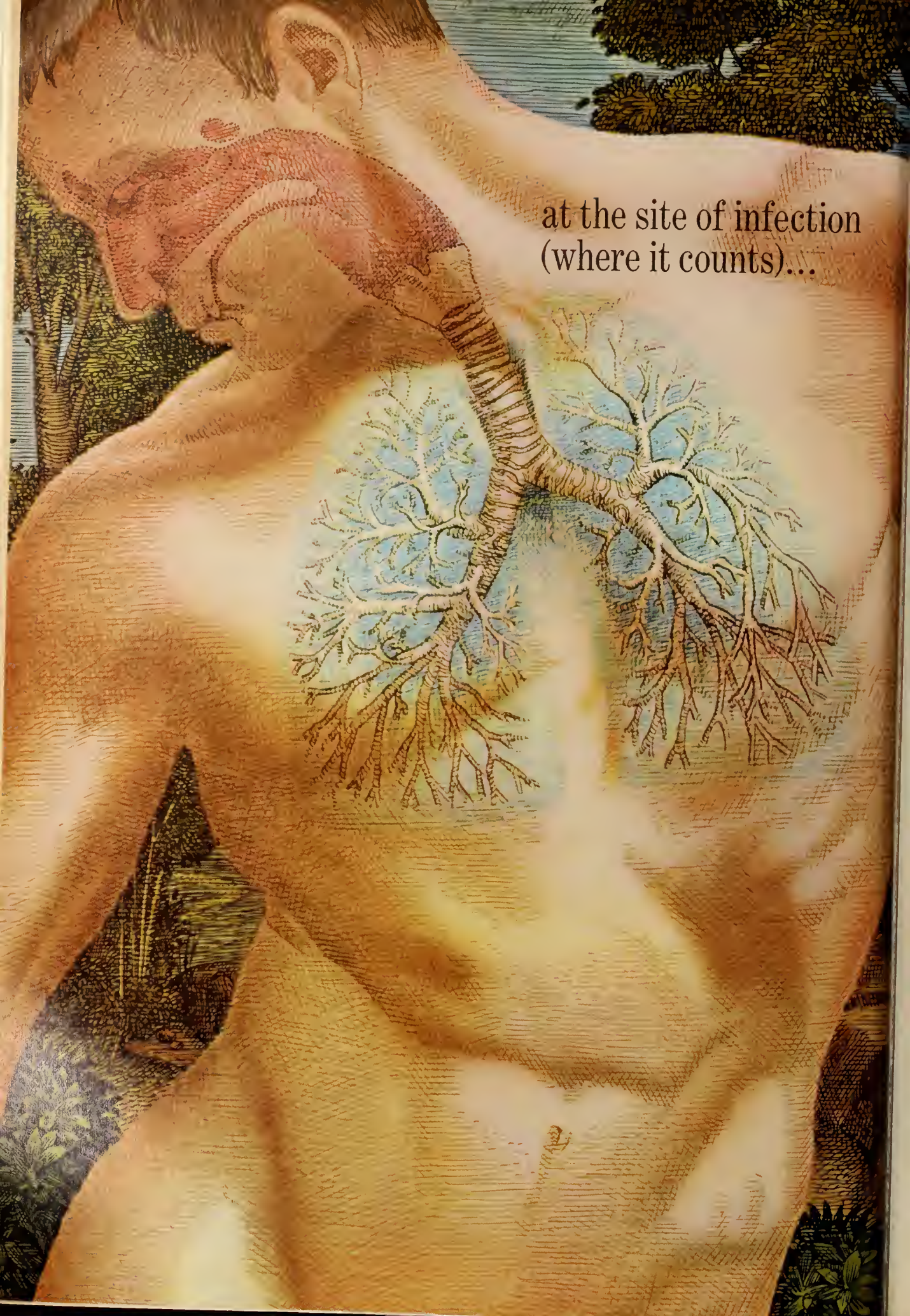
*Based on 4 cc. per teaspoonful.
Maintenance dosage may be as low as one-fourth the initial daily dosage.

Precautions: Lomotil is a federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded, and medication should be kept out of reach of children. Should accidental overdosage occur signs may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils and tachycardia. Lomotil should be used with caution in patients with impaired liver function or those taking addicting drugs or barbiturates.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of the extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

1. Barowsky, H., and Schwartz, S. A.: J.A.M.A. *180*:1058-1061 (June 23) 1962. 2. Cayer, D., and Sohmer, M. F.: N. Carolina Med. J. 22:600-604 (Dec.) 1961. 3. Hock, C. W.: J. Med. Ass. Georgia 50:485-488 (Oct.) 1961. 4. Van Derstappen, G., and Vandenbroucke, G.: Med. Klin. 56:962-964 (June 2) 1961. 5. Merlo, M., and Brown, C. H.: Amer. J. Gastroent. 34:625-630 (Dec.) 1960. 6. Weingarten, B.; Weiss, J., and Simon, M.: Amer. J. Gastroent. 35:628-633 (June) 1961.

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at the site of infection
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Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

Now available:
New! Ready-mixed Ilosone Liquid 125! (Contains erythromycin estolate equivalent to 125 mg. erythromycin base per 5-cc. teaspoonful.)

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Ilosone®
Erythromycin Estolate

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(See next page for prescribing information.)

Ilosone®/the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have also been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Adverse Reactions: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have developed in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly, usually within forty-eight hours, if the drug is readministered to sensitive patients. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to be definitely related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalin flocculation and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has not been reported in other patients taking prolonged courses of the medication. Patients with chronic infection have been given 1 to to 2 Gm. of the drug daily for periods of two to six months, and patients with rheumatic fever have taken prophylactic doses of 0.5 Gm. daily for two years without difficulty. In one group of 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of these patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who took 250 mg. of Ilosone daily for an average of sixteen months as rheumatic fever prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevation of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (ten-day) courses of Ilosone in the treatment of streptococcus infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a result of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticaria, skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®, Ilosone Liquid 125, Ilosone, 125, for Oral Suspension, Ilosone Drops, Ilosone Chewable Tablets.

For infants and for children under twenty-five pounds of body weight, the usual dosage is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. (Tablets Ilosone Chewable should be chewed or crushed and swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended as part of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days are recommended. In the treatment of gonorrhea, patients with a suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Ilosone Liquid 125, Oral Suspension, U.S.P., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60-cc. and pint-size packages.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size packages.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc.-size packages, with dropper calibrated at 25 and 50 mg.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base) in bottles of 50. [032767

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69, 1964. 2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 1962. 3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 1960.

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

70097

around the state

Brief Pictorial Review of the Medical Progress Assembly



The Birmingham Academy of Medicine went to all points in the nation to invite top speakers for the 10th Annual Medical Progress Assembly meeting. A noted few were, left to right, Dr. Donald G. McKay, Professor and Chairman of the Department of Pathology, College of Surgeons, Columbia University, New York City; Dr. Samuel L. Katz, Research Division of Infectious Diseases, Children's Hospital Medical Center, Boston; Dr. Calvin M. Kunin, Assistant Professor of Preventive Medicine and Medicine, University of Virginia, College of Medicine, Charlottesville; Dr. Isadore Dyer, Professor and Chairman of Department of Obstetrics, Tulane University School of Medicine, New Orleans, and Dr. Richard D. Brasfield, Clinical Associate Professor of Surgery, Cornell University Medical College, New York City.



Physicians and guests listen with intent interest to the programs presented.



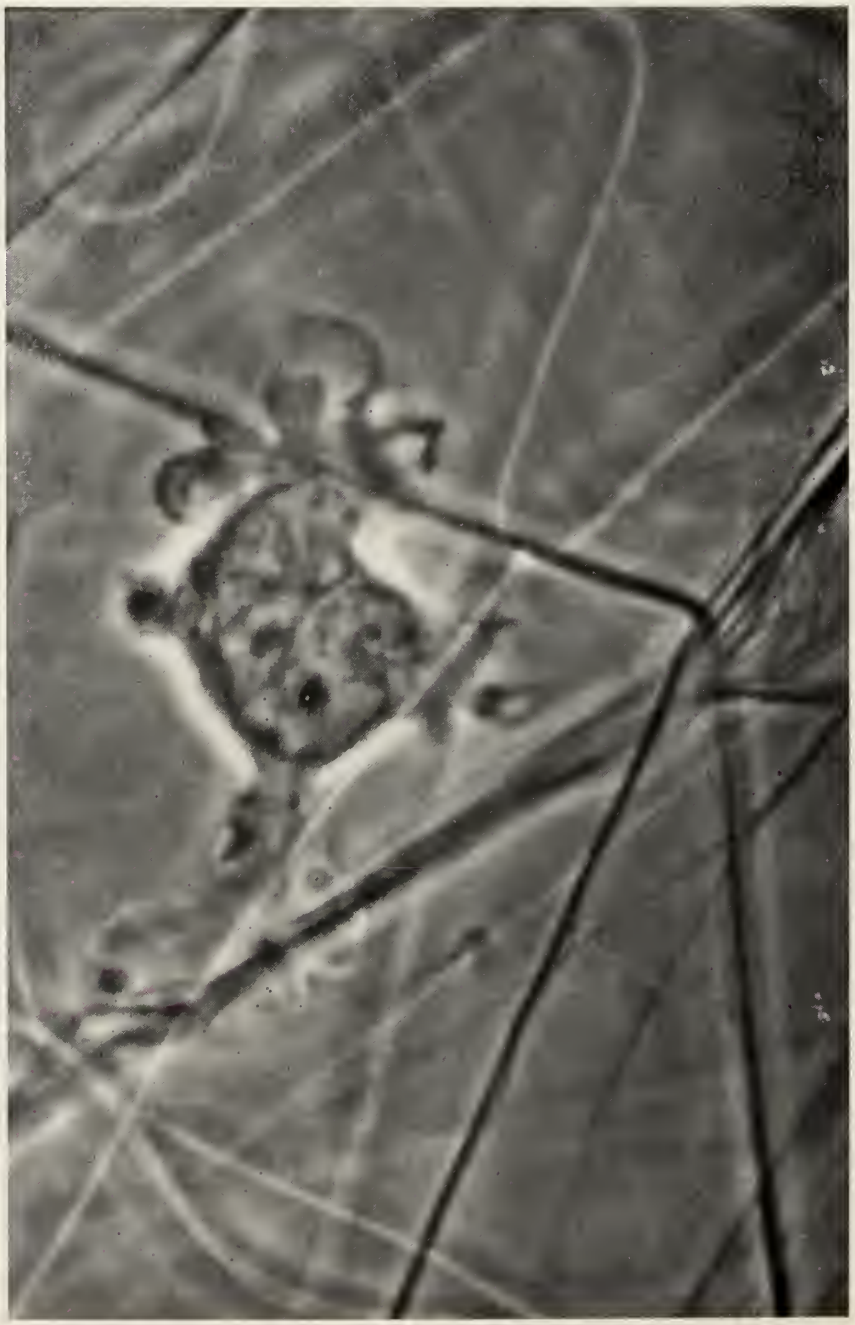
A group of doctors attending the American College of Surgeons Symposium on Trauma to the Upper Extremity. Dr. David G. Vesely, Birmingham presided at this meeting.

INFLAMMATION:
A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

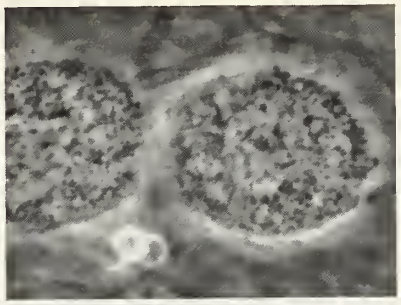


Visual evidence of how corticosteroids influence the inflammatory reaction

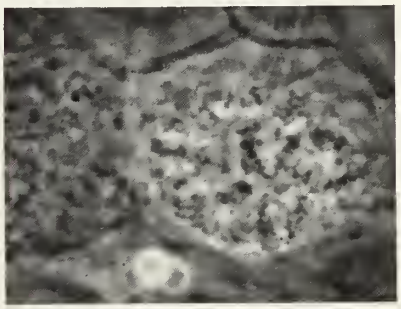
Working with phase-contrast cinemicrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



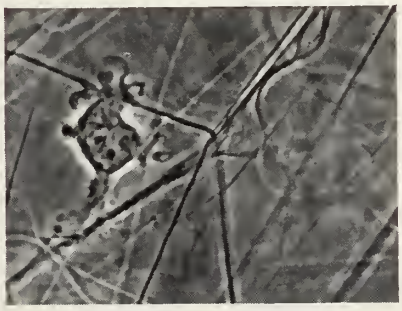
Phase-contrast microscopy showing mast cell before injury.



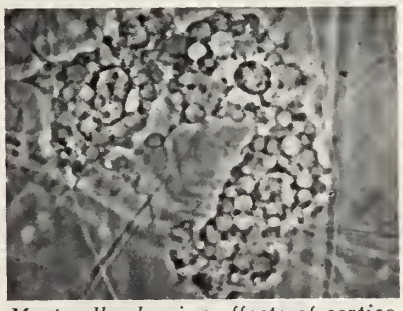
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid — Synalar (fluocinolone acetonide) — the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.



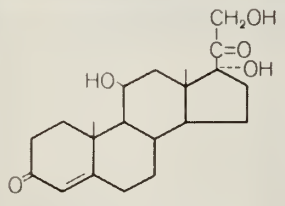
In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

**A New View of Corticosteroid Action in Inflammatory Dermatoses*, a film based on this study, is now available from your Syntex representative.

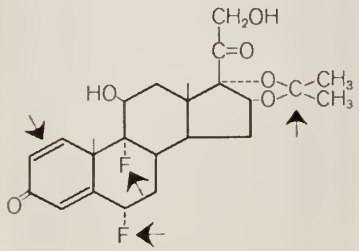
See last page for contraindications, precautions, side effects and dosage

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more cortiscosteroid. And it can often do it more effectively.



Hydrocortisone

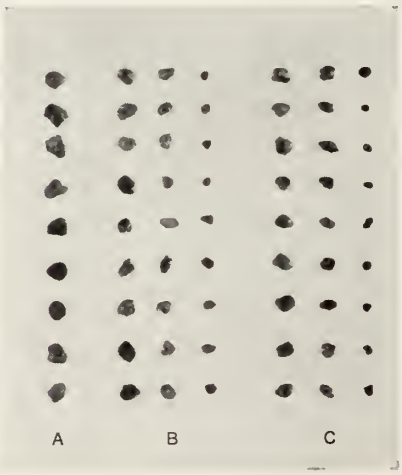


Fluocinolone Acetonide (Synalar)

- *a double bond between carbons 1 and 2*
- *fluorine substitutions at* both *the 6-α, and the 9-α positions*
- *the addition of the acetonide at the 16-α, 17-α positions, thus providing one of the most potent topical corticosteroids available.*

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY[1-4] is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B —injected with 1, 2 and 4 mg. of hydrocortisone—show progressively smaller thymuses as does Group C—injected with fluocinolone acetonide —but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY[1-4] also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes. CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. PRECAUTIONS: Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. SIDE EFFECTS: Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. Ann NY Acad Sci 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. Proc Soc Exp Biol Med 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: Methods of hormone research, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

fluocinolone acetonide — an original steroid from

SYNTEX LABORATORIES INC., PALO ALTO, CALIF.

For inflammatory dermatoses... by any measure a topical corticosteroid of choice

Synalar® (fluocinolone acetonide)

Milligram for milligram one of the most active topical corticosteroids available

Rapid and predictable in antiinflammatory and antipruritic activity

Results often comparable to those of systemic corticosteroids with fewer hazards



Other MPA speakers were: Dr. Robert G. Menninger, Director C. F. Menninger Memorial Day Hospital, Topeka, Kansas; Dr. Joseph C. Shipp, Associate Professor of Medicine, University Florida College of Medicine, Gainesville; Dr. Ronald H. Dietzman, Medical Fellow, Department of Surgery, University of Minnesota College of Medicine, Minneapolis, and Peter Jennings, ABC Newscaster who was the principal speaker September 17. Dr. W. E. Lawrence, Birmingham, had the honor of paying special tribute to those physicians whose leadership prompted the continued growth and development of the Academy and its educational programs.



Dr. Donald B. Sweeney, Birmingham, first president of the 1954 MPA receives a plaque as a symbol of the academy's appreciation and Dr. S.



Buford Word, Birmingham, receives the same honor as the 1957-58 General Chairman.



There was time to enjoy banquets,



The Medical College of Alabama Alumni luncheon,



view the many exhibits



and to enjoy coffee breaks at pool side.



Dr. Howard Meadows, Lowndesboro, OEO project Director, gives a step-by-step accounting of the establishment of the Comprehensive Health Care Program in Lowndes County to the Dallas County Medical Society September 11.



Dr. James Nettles, Wilcox County, discusses the OEO Program with Dr. Carlos J. Ross, President of the Dallas County Society.



←

Alabama Heart Association representatives Doctors Charles W. Porter, Fairfield, and Chester W. White, Jr., Birmingham, appeared before the September 10 Board of Trustees meeting to request policies in regard to training health care personnel, public safety agencies and industries in the correct procedures for administering cardio-pulmonary resuscitation. The Board approved the request.



The four District Vice-Presidents meet with President-Elect Dr. E. L. McCafferty, Jr., Mobile, September 9 to begin laying the groundwork for a series of regional meetings to explain the Federal health care programs now being instituted in Alabama. Left to right, Dr. O. Emfinger, Union Springs (SE); Dr. F. M. Phillippi, Jr., Brewton (SW); Dr. J. E. Cameron, Alexander City (NE); Dr. S. J. Campbell, Birmingham (NW) and Dr. McCafferty.



Governor Lurleen B. Wallace signs into law the two-cent cigarette tax bill which will provide more than $6 million a year in revenue for the Departments of Mental Health and Health. On hand for the occasion were Bob Ingram, MASA staff, Dr. Ira L. Myers, State Health Officer and Dr. Robert F. Parker, Montgomery, chairman, State Mental Health Board.

Vital Statistics

NEW MEMBERS

Jefferson County

Clark, Eugene C., 700 S. 19th Street, Birmingham, Ala. 35233

Crow, Aubrey D., 1919-7th Ave. South, Birmingham, Ala. 35233

Russell, Robert T., 410 Medical Arts Bldg., Birmingham, Ala. 35205

Slappey, William J., Jr., 1908 Courtney Dr., Birmingham, Ala. 35209

Thrasher, Helen R., 619 S. 19th Street, Birmingham, Ala. 35233

MEMBERS REMOVED OR DECEASED

Chambers County

Riser, William H., Lafayette, Ala. 36862—Deceased.

Jefferson County

Chapman, Jerome C., 2643 Park Lane Circle, Birmingham, Ala. 35223—Deceased.

Harris, Herbert A., 2457 Shadescrest Rd., Birmingham, Ala. 35216—Deceased.

Mobile County

Cogburn, Harry R., 1707 Springhill Ave., Mobile, Ala. 36604

CHANGE OF ADDRESS

Coffee County

Kimmey, John M., present Enterprise, Ala. 36330, to Drawer H. Elba, Ala. 36323

Jackson County

Jones, H. Grady, present Birmingham, Ala. 36234, to 915 S. Broad St., Scottsboro, Ala. 35768

Jefferson County

Lewis, Thomas K., Sr., present Mississippi City, Miss., to 4492 Kendall Circle, Gulfport, Miss. 39501

Purvis, John T., present Birmingham, Ala.

(Continued on Page 441)

Night Leg Cramps . . . Unwelcome Bedfellow

In Diabetes[1], Arthritis[2], and Peripheral Vascular Disorders[2]



now . . . specific therapy for night leg cramps

Walker

QUINAMM™

Consistently effective, QUINAMM provided complete relief in 94% of 200 patients studied, many of whom were severe cases refractory to other medication.[3] Your prescription for one tablet at bedtime often controls painful night cramps with the initial dose . . . helps restore restful sleep.

THE NATIONAL DRUG COMPANY
DIVISION OF RICHARDSON MERRELL INC
PHILADELPHIA, PENNSYLVANIA 19144

Prescribing Informotion: Composition: Each white, beveled, campressed tablet contains: Quinine Sulfate 260 mg. and Aminaphylline 195 mg. **Contraindication:** QUINAMM is contraindicated in pregnancy because af its quinine content. **Precautions:** Aminaphylline may praduce intestinal cramps in same instances, and quinine may praduce symptams af cinchanism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discantinue use if ringing in the ears, deafness, skin rash, ar visual disturbances accur. **Dosoge:** One tablet upan retiring. Where necessary, dasage may be increased ta ane tablet fallawing the evening meal and ane tablet upon retiring. **Supplied:** Battles af 100 and 500 tablets.
References: 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et al.: Angialagy, 12:102, 1961. 3. Rawls, W., et al.: Med. Times, 87:818, 1959.
6/67 Q-706A

When the agitated geriatric disrupts the home...

His teen-age granddaughter won't invite friends home because of his outbursts.



for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ



See following page for prescribing information

When the agitated geriatric disrupts the home...

Anxiety that *seriously interferes* with the individual's performance at work, at home, or in the community may be regarded as *moderate to severe* in degree.

Mellaril often recommends itself to the treatment of moderate to severe anxiety because it

- helps control the most frequent symptoms: marked tension, agitation, apprehension, restlessness, hypermotility
- often alleviates anxiety-induced somatic complaints
- frequently helps strengthen emotional resources
- helps the patient maintain realistic contact with environment, closer harmony with family

Thus, when you consider the anxiety moderate to severe... consider Mellaril.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming...	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

VITAL STATISTICS

(Continued from Page 436)

35205, to 624 Quaker Lane, Highpoint, North Carolina 27262.

Scofield, Paul D., present Rockledge, Fla. 32955, to Coquine Apt. 7, South Indian River Drive, Cocoa, Fla. 32922

Madison County

Moore, Lewis W., present Huntsville, Ala. 35801, to 930 Franklin, Suite No. 101, Huntsville, Ala. 35801

Mobile County

Harris, Robert O., III, present Mobile, Ala. 36607, to 3920 Airport Blvd., Mobile, Ala. 36608

Russell County

Nix, Alton R., present Phenix City, Ala. 36867, to P. O. Box 249, Phenix City, Ala. 36867

COUNTY MEDICAL SOCIETY OFFICERS

Tuscaloosa County

President—John F. Burnum, M. D.

President Elect—Everett Hale, M. D.

Secretary-Treasurer—L. Earl Glenn, M. D.

Board of Censors—Tuscaloosa County

James H. Thomas, M. D., Chairman

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James St. John, M. D.

L. C. Sharman, M. D.

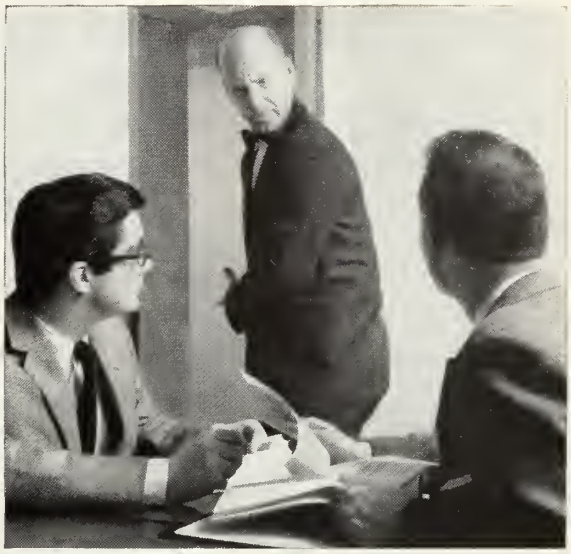
John Nelson, M. D.

DeKalb County Meeting

The Medical Society of DeKalb County met September 5 at the DeKalb County Hospital with Dr. William C. Gibson, Vice President, presiding. Seven members were present.

Dr. Charles A. Isbell, Fort Payne, was the principal speaker following the dinner. His subject was "A Case Presentation—Intussusception."

(Continued on Page 444)



He leaves to make an urgent call But doesn't use the phone at all

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects intestinal mucosa

Whether it's a 24-hour "bug", a food problem, or simply nervousness and anxiety, Parepectolin will bring the diarrhea under control until etiology can be determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
Paregoric (equivalent) (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin (2½ grains) 162 mg.
Kaolin (specially purified) (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Adult Dose: One or two tablespoonfuls three times daily.

RORER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

when bursitis hits a 280-lb. tackle, hit back with Butazolidin alka



Indications: Osteoarthritis, rheumatoid arthritis, rheumatoid spondylitis, psoriatic arthritis, acute gout, painful shoulder (peritendinitis, capsulitis, bursitis and acute arthritis of that joint), acute superficial thrombophlebitis.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently. Large doses of Butazolidin alka are contraindicated in glaucoma.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Instances of severe bleeding have occurred. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Before prescribing, carefully select patients, avoic those responsive to routine measures as well as contraindicated tients. Obtain a detailed history and a complete physical and labora examination, including a blood count. The patient should not exc recommended dosage, should be closely supervised and should warned to discontinue the drug and report immediately if fever, s throat, or mouth lesions (symptoms of blood dyscrasia); sudden we gain (water retention); skin reactions; black or tarry stools or o evidence of intestinal hemorrhage occur. Make regular blood cou Discontinue the drug immediately and institute countermeasures if white count changes significantly, granulocytes decrease, or imma forms appear. Use greater care in the elderly and in hypertensi

Adverse Reactions: The most common are nausea, edema and c rash. Swelling of the ankles or face may be minimized by withhol dietary salt, reduction in dosage or use of diuretics. In elderly pati and in those with hypertension the drug should be discontinued the appearance of edema. The drug has been associated with pepti

For 280-lb. tackles—or 108-lb. housewives—Butazolidin alka can hasten recovery from the agonizing pain of shoulder bursitis.

Is not for every patient. Check carefully the Contraindications, Warning and Precautions shown below.

And adverse reactions may occur. The most common are nausea, edema and rash. Rarely, agranulocytosis has been reported. All adverse reactions are listed below, too.

Pay-for-pay or workaday patients—when they come up with shoulder bursitis and your clinical judgment indicates Butazolidin alka—go with it.

And watch the comeback.



and may reactivate a latent peptic ulcer. The patient should be instructed to take doses immediately before or after meals or with milk to minimize gastric upset. Mild drug rashes frequently subside with reduction of dosage. However, rash accompanied by fever or other systemic reactions usually requires withholding medication. Pruritic rash has also been reported. Agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome, or a generalized allergic reaction similar to serum sickness may occur and require permanent withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur. 6509-V(B)R2

Butazolidin® alka

Capsules

100 mg. phenylbutazone
100 mg. dried aluminum hydroxide gel
150 mg. magnesium trisilicate
1.25 mg. homatropine methylbromide

Dosage in painful shoulder: Initial: 3 to 6 capsules daily in 3 or 4 equal doses. Trial period: 1 week. Maintenance dosage should not exceed 4 capsules daily; response is often achieved with 1 or 2 capsules daily.

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Hospital Administration Students Receive Degrees

The first group of graduate students in the University of Alabama in Birmingham Program in Hospital Administration were awarded Master of Science Degrees in Hospital Administration at 8:00 P. M. Friday, August 18, at Foster Auditorium in Tuscaloosa.

Miss Claire B. Underwood, Mr. Bobby R. Gipson and Mr. Edward S. Ferrell have completed one year of academic course work and twelve months of controlled residency under the supervision of a preceptor. During the period of residency each submitted a thesis and completed a comprehensive oral examination.

The Graduate Program in Hospital Administration is conducted by the School of Health Services Administration, a major division of the University of Alabama in Birmingham.

Mr. Matthew F. McNulty, Jr., formerly General Director of the University of Alabama Hospitals and Clinics, is Dean of the School of Health Services Administration.

Miss Claire Underwood has a B. S. in Pharmacy from the University of Mississippi. She served her residency at the University of Alabama Hospitals and Clinics under the direction of Mr. Robert W. Holters, Administrator. Her thesis topic was "Changes in Nursing Activities Brought About by the Introduction of Unit Management." Miss Underwood has accepted a position of Administrative Assistant at the University of Alabama Hospitals and Clinics.

Mr. Bobby R. Gipson has an A. B. degree in Biology and Chemistry from Birmingham-Southern College. He took his residency at Baptist Memorial Hospital in Gadsden under the supervision of Mr. J. Cecil Hamiter, Administrator. His thesis topic was "The Impact of Medicare on the Accounting Systems of Some Small, Community General Hospitals." Mr. Gipson was a science teacher in the Birmingham Public Schools for three years prior to the beginning of his graduate studies.

Mr. Edward Ferrell has a B. S. degree in Industrial Engineering from the Georgia Institute of Technology. He served his residency at St. Vincent Hospital in Birmingham under the direction of Sister Mary Bourke, Administrator.

Mr. Ferrell was Assistant to the General Director of the University of Alabama Hospitals and Clinics during the year prior to the beginning of his graduate studies. For five years he was Director of the Systems Development Department at the University of Alabama Hospitals and Clinics.

Mr. Ferrell was Principal Investigator on a U. S. Public Health Grant entitled "Instruments for Predicting Absenteeism and Turnover" concurrently with his graduate studies. His thesis concerned the same subject. He has published several papers in the hospital journals and has spoken to local and national groups related to Industrial Engineering in the hospital field.

Mr. Walter F. Robbins is Chairman of the Graduate Program in Hospital Administration and Assistant Dean of the School of Health Services Administration.

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

ALAPAC Membership Gains Remarkable

Alabama physicians have been urged to make 1968 the best year ever for the Alabama Medical Political Action Committee (ALAPAC).

"The membership gains reported in 1967 were remarkable, especially since this was a non-election year," Dr. E. B. Glenn, ALAPAC chairman, noted. "But it is imperative that we do even better in '68."

"The physicians of Alabama must let their united voice be heard in the 1968 congressional elections, and the only way this can be done is through ALAPAC," he continued.

Dr. Glenn said that despite the membership gain in 1967 that still about only one doctor out of eight is associated with ALAPAC.

"Politically speaking, you might say the Alabama medical profession is somewhat like an eight-cylinder car running on one cylinder," he said.

"In 1966 great strides were made throughout the nation toward returning control of Congress to those with a conservative philosophy," he said. "The victories in 1966 were reflected in the legislation enacted by Congress this year. The pendulum has begun to swing away from the liberal-Great Society direction, and the 1968 elections will determine whether this trend will continue."

Essay On Anatomy

By

5th Grade Boy

Your head is hard and round . . . with hair on top.

Your face is in front of your head . . . where you eat.

Your neck sits on top of your shoulders to hold your head, and your shoulders hold your over-all straps.

Your stomach is where it hurts . . . when you don't eat.

Your spine is bones running up your back to keep you from folding up.

Your back is always behind you . . . no matter which way you turn.

Your arms are to pitch with and . . . reach the biscuits.

Your fingers stick out from your hands . . . so that you can scratch . . . throw a curved ball and . . . add arithmetic.

Your legs are what gets you to first base.

Your feet are what you always fall over.

Your toes are what get stubbed . . . and that is all there is of you . . . except what's inside . . . and I ain't seen that yet.

Contributed by:
Sara Natalie Howard Bruce
Midfield, Alabama



Review of Legislative Developments Relating To Health And Medicine

A record number of bills relating directly or indirectly to health and medicine were introduced in the 1967 regular session of the Alabama Legislature.

The ever-increasing interest of legislators in matters of health required a corresponding increase of interest in political activity by the Medical Association of the State of Alabama.

Every bill which in any way affected the practice of medicine or the health of the people of Alabama was carefully studied and considered by the Committee on Legislation of MASA, chaired by Dr. E. L. McCafferty, Jr., of Mobile.

During the session of 1967 the committee considered more than 90 bills and recommended that MASA take a position on 33 of these. The committee recommended that MASA endorse 24 of these proposals (11 of which were drafted by the Health Department) while nine others were opposed.

Overall, MASA's legislative record was good. Six of the Health Department bills were enacted into law, and these were considered the most vital of those prepared by that agency. They related to such diverse subjects as narcotics, home health services and syphilis.

Another important piece of legislation of great significance to the Health Department was the 2¢ cigarette tax. While the primary recipient of this new revenue will be the Department of Mental Health, 30 per cent of the tax money will go to the Health Department.

Perhaps the major achievement of the summer was the designation of the State Board of Health as the single state agency to administer Title XIX. While this was done by Executive Order of Gov. Lurleen B. Wallace, her action was precipitated in part by the strong legislative support evidenced for Senate Bill 293, which would have made the designation by legislative act.

Three efforts were made during the spring and summer to triple the annual license fee paid by physicians to the Healing Arts Board. On every occasion the bills were killed in committee.

The most resounding setbacks on the legislative front concerned optometry. The Alabama Optometric Association, strongly supported by the Wallace Administration, passed a package of bills which were vigorously but unsuccessfully opposed by MASA.

No chiropractic legislation of any sort was passed during the session.

A major fight developed in the area of air pollution after a special interim committee drafted a bill which the Health Department felt was far short of what was necessary. The pollution bill, which would have given industry almost total control of the program in Alabama, was successfully opposed by MASA. It died on the Senate calendar.

Following is a table outlining the bills on which MASA took a position, and the outcome of each of these bills.

SENATE BILLS

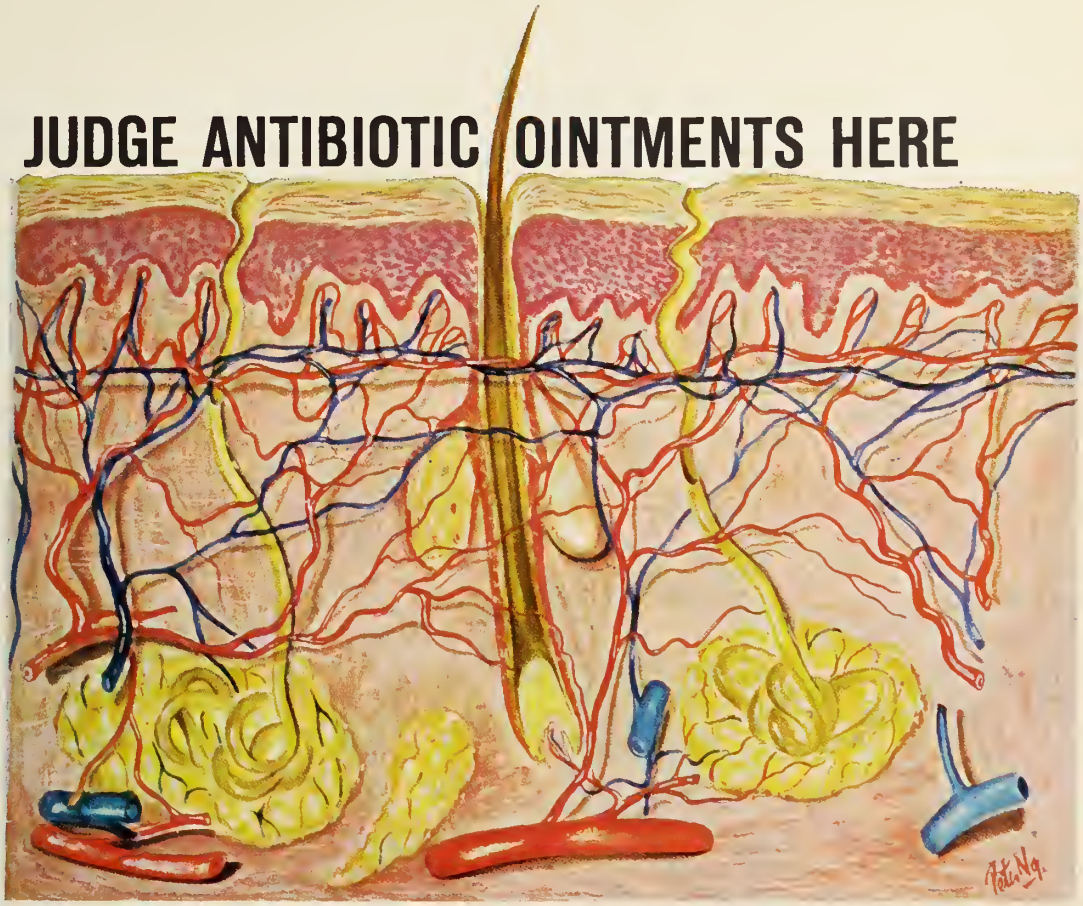
	SUBJECT	OUTCOME	MASA POSITION
S. 82	To amend Battered Child Law to include sexual abuse and starvation as criminal acts.	Passed	Endorsed
S. 96	To permit nurse anesthetists to administer general anesthetic under direct supervision of dentist.	Passed	Endorsed
S. 172	To give 5% pay raise to county Health Department employes.	Passed	Endorsed
S. 182	To allow person covered by medical insurance who needs visual care to choose either an optometrist or ophthalmologist.	Passed	Opposed
S. 183	To exempt from sales tax therapeutic devices furnished by optometrists.	Killed in Committee	Opposed
S. 185	To allow person covered by federal health care program in need of visual care to choose optometrist or ophthalmologist.	Passed	Opposed
S. 274	To provide that state funds be allocated to TB hospitals on basis of licensed beds in facility rather than on bed occupancy.	Passed	Endorsed
S. 293	To designate State Board of Health as single state agency to administer Title XIX. (This bill was not pushed after designation made by Executive Order of governor.)	Died in Committee	Endorsed
S. 312	To amend LSD control law to include morning glory seed as prohibited narcotic.	Passed	Endorsed
S. 322	To amend state abortion law to permit abortions if necessary to preserve life, health or mental health of mother; or if medically determined that the child would be physically handicapped or mentally retarded.	Died on Calendar	Endorsed
S. 327	A major amendment to narcotic law embracing three specific points: It prevents any physician from prescribing narcotics for his office use or doctor's bag or picking up the drugs himself; it specifies that physician must hold a valid narcotic tax stamp to administer or prescribe drugs; it requires physicians to keep records of all narcotics prescribed or administered.	Passed	Endorsed
S. 328	To permit state agencies which confiscate autos in narcotics cases to retain vehicles for official state business.	Died in Committee	Endorsed
S. 336	To require all boats to be equipped with marine toilets (chlorinator).	Died in Committee	Endorsed

	SUBJECT	OUTCOME	MASA POSITION
S. 337	To prohibit the building, maintaining or use of insanitary sewage facilities.	Died on Calendar	Endorsed
S. 338	To increase from misdemeanor to felony the punishment for illegal sale or possession of amphetamines and barbiturates.	Passed	Endorsed
S. 371	To authorize State Board of Health to regulate ambulance services companies.	Died in Committee	Endorsed
S. 381	To increase annual license fee paid by optometrists from $12 to $112, with $100 earmarked to finance School of Optometry.	Passed	Opposed
S. 388	To establish State Board of Podiatry, and remove podiatrists from control of Board of Medical Examiners. Bill was amended to require podiatrists to pass Basic Science Exam.	Passed	Opposed

HOUSE BILLS

	SUBJECT	OUTCOME	MASA POSITION
H. 56	To substantially increase annual fee paid by physicians to Healing Arts Board.	Killed in Committee	Opposed
H. 88	To allow publicly owned hospitals and nursing homes to be audited by CPA.	Passed	Endorsed
H. 113	To make it felony to entice children for immoral purposes. (Part of Sex Crime Commission package).	Passed	Endorsed
H. 114	To make it felony for man to indecently expose himself to children 14 or under.	Died on Calendar	Endorsed
H. 115	To make it felony for adult to indecently molest a child.	Passed	Endorsed
H. 350	To authorize Health Department to collect fee from non-indigent recipients of Home Health Service program.	Passed	Endorsed
H. 380	To permit the processing of wild animals at meat packing plants in Alabama.	Passed	Opposed
H. 458	To require all laboratories in state to report to Health Department all positive syphilis tests.	Passed	Endorsed
H. 556	To authorize imposition of 2c cigarette tax, 70% going to mental health, 30% to health.	Passed	Endorsed
H. 557-558-559	To authorize issuance of $15 million in bonds for mental health construction purposes.	Passed	Endorsed
H. 581	Same as H. 56, substantially increasing fee paid by physicians to Healing Arts Board.	Killed in Committee	Opposed
H. 666	To require fluoridation of all municipal water supplies.	Died in Committee	Endorsed
H. 667	To provide for control of air pollution, and to establish Air Pollution Commission. (Only one representative of health field was on proposed commission.)	Died on Calendar	Opposed

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Latest Rulings on Ethical Conduct

EDITOR'S NOTE: *Just as the Supreme Court of the United States periodically render decisions and opinions on constitutional law, so, too, does the Judicial Council of the American Medical Association hand down opinions on ethics as they may affect local county medical societies and individual physicians.*

The A. M. A. Judicial Council recently circulated to all county medical societies new guidelines and opinions in several areas.

Use of Terms "Ethical" and "Unethical"

The Judicial Council has been asked to comment upon the use of the terms "ethical" and "unethical" as used in *Opinions and Reports* of the Judicial Council and resolutions of the House of Delegates of the American Medical Association.

Historically, the term "ethical" has been used in *Opinions and Reports* of the Judicial Council and in resolutions adopted by the House of Delegates to refer to matters involving (1) moral principles or practices; (2) customs and usages of the medical profession; and (3) matters of policy not necessarily involving issues of morality in the practice of medicine. The term "unethical" has been used to refer to conduct which fails to conform to these professional standards, customs and usages, or policies, as interpreted by the American Medical Association.

Unethical conduct involving *moral principles*, values and duties calls for disciplinary action such as censure, suspension, or expulsion from medical society membership.

Failure to conform to the *customs and usages* of the medical profession may call for disciplinary action depending upon the particular circumstances involved, local attitudes, and how the conduct in question may reflect upon the dignity of and respect for the medical profession.

In matters strictly of a policy nature, a physician who disagrees with the position of the American Medical Association is entitled to freedom and protection in his point of view.

Charging Penalty for Over-Due Accounts

"Since the practice of medicine is a profession and not a business, the practices adopted by businesses are not necessarily suitable for professional practice.

"It is not in the best interest of the public or the profession to charge interest on an unpaid bill or note or to charge a penalty on fees for professional services not paid within a prescribed period of time nor is it proper to charge a patient a flat collection fee if it becomes necessary to refer the account to an agency for collection."

Participation by Physicians in Bank Card Programs

The growth and development of credit cards is burgeoning. A new form of card, the so-called *bank card,* is being widely introduced. Bank cards are issued without cost to the cardholder; they are acceptable at many more places than conventional credit cards; they are sponsored by large, reputable banks. They are an innovation in our economic system.

As these bank card plans have come into being, in all parts of the country, physicians have asked if they may ethically use bank cards as a form of payment for professional services. Some medical societies have said physicians may participate; others have said physicians may not.

The Judicial Council believes a uniformity of opinion is desirable. In matters of ethics it would seem indisputable that a general rule should be determined for the guidance

of the profession, and that this rule should be implemented at local level.

The medical profession has officially recognized that it cannot dictate to patients how they shall finance their medical bills. It can and should, however, determine principles to guide its members in determining whether and how they may participate in any payment program.

If the bank card were merely a substitute for cash or check in the payment of bills, little or no problem would be presented to physicians regarding their use; they would be merely a newly adopted medium of exchange. Bank cards, however, serve a two-fold function: They are a convenience—a substitute for currency or check in the payment of indebtedness; and they are also a financing mechanism. Consequently, their indiscriminate use, especially the financing of larger medical bills through banks, could result in additional cost to patients. While the doctor's fee for medical care would not increase, the cost of financing payment of that fee through a third party would be imposed on the patient. Of course, patients may voluntarily elect to pay larger amounts in return for the convenience of a given program. Still, the medical profession has a responsibility to guard against patients being placed in untenable financial conditions because of overall medical care costs. That is why medicine has been in the forefront in encouraging prepayment and insurance programs to provide for the costs of medical services. It must, therefore, maintain its position of safeguarding patients' interests when considering new methods of financing personal indebtedness.

The Judicial Council is of the opinion that neither endorsement nor disapproval should be given to the bank card system at this time.

In June, 1965, the Judicial Council and the Council on Medical Service jointly agreed that any proposed plan for financing medical care or parts of medical care should be judged by the physician in the light of whether or not it might "result in advertising or solicitation of patients by physicians, profit to physicians for other than professional services, exploitation of the patient, or unnecessary increase in the cost of medical care."

Judged by these criteria, the Judicial Council is of the opinion, at this time, that physician participation in bank card programs is not per se unethical. It is of the opinion that physicians may ethically accept bank cards in the payment of current medical bills in lieu of cash or check, that is, as a medium of exchange.

The use of bank cards in financing medical fees must, however, be viewed with reserve at the present stage of their development. While patients may not be denied the right to determine matters of their personal budgeting, physicians must not encourage the use of this financing method if in operation it might compromise the ideals of the medical profession or add to the financial burden of patients.

In connection with physician participation in bank card programs, the Judicial Council recommends the following principles to be implemented and applied as necessary by the county medical society for the guidance of physicians as these programs develop.

1. The county medical society should be satisfied as to the financial and professional integrity of the plan. It should negotiate with the plan sponsors to insure that service charges to the physician are reasonable. It should insist that the plan be open to all physicians on the same terms and that it not exploit or capitalize on physicians' participation in the plan. It should advise the plan that the listing of physicians in directories of participating members is contrary to the ethics of the medical profession.
2. The individual physician may not, because of his participation, increase his

(Continued on Page 455)



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RULINGS ON ETHICAL CONDUCT

(Continued from Page 453)

fee for medical service rendered the patient. He may not use the plan to solicit patients. He may not encourage patients to use the plan. His position must be that he accepts the plan as a convenience to patients who desire to use it. Plaques or other devices indicating participation in the plan within the physician's office shall be kept to a discreet and dignified minimum. Plaques, signs, or other devices indicating such participation visible outside the physician's office are unacceptable.

3. The use of a bank card in connection with the payment of larger fees—which might normally be paid to the physician in installments—is not to be encouraged. All members of the Association are expected to continue the traditional practice of permitting patients of limited means to pay relatively large fees in installments without interest or carrying charges. Out of respect for the dignity and traditions of the medical profession, the physician may not relieve himself of his obligations "to render service to humanity, reward or financial gain being a subordinate consideration."

Guidelines for Physicians in their Relations with the Communications Media

Many people, literate and well educated, do not possess a special knowledge of medicine. Medical books and journals are not always easily accessible or readily understandable.

Physicians are aware that patients' information concerning health and health education frequently comes from the daily or weekly newspaper. The press, together with popular magazines, radio, and television, are often the primary, and for many, the only source of information about medicine and health.

The public is eager to learn all it can of the most recent advances in the cure of diseases. It is anxious to learn about and put into effect the best methods of public hygiene and preventive medicine. The daily press and other communication media have correctly considered such subjects as news. It is in the public interest that this news be accurate and presented by spokesmen trained in medicine.

The American Medical Association is well aware that specific decisions regarding relations between physicians and the communications media must and should be determined at the community level by the local medical society and its membership. These guidelines are offered to the county medical society as a starting point and a reference to help them develop and improve press relations at the community level.

The following guidelines have been approved by the Judicial Council of the American Medical Association to aid in the smoother flow of accurate medical news from the medical profession to those who collect and disseminate such news.

I

Each medical society should appoint a communications committee, or designate a responsible individual or individuals, whose duty shall be to provide the communications media with accurate information on all medical matters of interest to the public. This information should be given freely. The communications committee may also serve in an advisory capacity to all communications media and to all physicians of its society in questions involving relationship with the media. To assist the media in obtaining information, medical societies may furnish the media with a list of names of physicians from whom authoritative information may be obtained, or a designated individual may serve as liaison between the media and the profession and furnish names of physicians

to provide authoritative information when required.

These spokesmen may be quoted by name and title. This should not be considered by their colleagues as seeking publicity, since it is done in the best interest of the public and the profession. They may ethically provide appropriate information regarding medical and public health matters which have been discussed in technical papers or during medical meetings.

The officers, committee chairmen, and designated spokesmen of medical societies should be available at all times to bonafide representatives of the communication media in order that authentic information may be obtained as soon as possible.

II

Because certain news (1) is a part of the public record, or (2) is a matter of concern to civil authorities, it is readily available for publication. Physicians should cooperate with the press to insure that medical news of this sort is available more promptly and more accurately than would be possible without their assistance.

News in this category, known as news in the public domain, includes: births, deaths, accidents, and police cases.

The following information in the public domain can be made available without the patient's consent:

(a) Personal information: patient's name, address, age, sex, race, marital status, employer, occupation, name of parents in case of births, name of next-of-kin in case of deaths.

(b) Nature of accident:
Only general information regarding injuries will be released. This consists of the name of the injured portion of the body such as back injury, etc.

It may be stated that there are internal injuries. If the patient is unconscious when brought to the hospital, a statement to that effect may be made.

Statements regarding the circumstances surrounding shootings, knifings and poisonings are properly police matters and questions whether they were accident or otherwise should be referred to the appropriate authorities.

A statement may be made to the effect that the patient was injured by a knife or other sharp instrument, but no statement may be made as to whether or not it was assault, accident, or self-inflicted.

A statement may be made that the patient received burns and the member of the body affected may be indicated.

No statement may be made that there was a suicide or attempted suicide.

No statement may be made to the effect that intoxication or drug addiction was involved.

No statement may be made that moral turpitude was involved.

(c) Diagnosis and prognosis:
Inasmuch as a diagnosis may be made only by a physician and may depend upon X-ray and laboratory studies, no statement regarding diagnosis should be made except by or on behalf of the attending physician. For the same reason prognosis will be given only by the attending physician or at his direction.

(d) Patient's condition:
A statement may be made as to the general condition of the patient using the following classifications: minor injuries or similar general diagnosis, good, fair, serious, critical.

III

When information concerning a specific

patient is requested, the physician must obtain the consent of the patient or his authorized representative before releasing such knowledge. The patient's decision is final under the law. A physician may, within the limits of good taste, encourage the patient or his family to state the cause of illness, or the cause of death, when this information is requested by a bonafide representative of the press. Where a person of public interest is involved, and the release of information has been authorized, the physician may arrange for regular bulletins concerning the person. The ethical physician will use restraint and good judgment regarding the use of his name in connection with such published reports.

IV

Publications of photographs of physicians, who appear before recognized medical organizations, either in the official program of the scientific meeting or before the public press in connection with such meeting, is permissible. The use of photographs in the press when physicians are elected to office or when physicians are quoted by name on matters of general interest, not related to the care of a specific patient, is likewise permissible. Photographs of physicians in connection with civic or social affairs, not related to medical news or the care of patients, may be published unless the frequency of such photographs bespeaks self-exploitation. This applies also to magazine articles. Physicians should clear such publicity, whenever possible, with their county society.

V

The promise of radical cures or boasting of extraordinary skill or success is considered unethical by the medical profession because it is contrary to the best interest of the public.

VI

For purposes of clarity, the following principles should guide physicians who appear on TV or radio programs or who are interviewed in other media of public information, such as newspapers and magazines:

(a) Doctors of medicine are expected to refrain from sponsoring products directly or by implication.

(b) When introduced as a doctor on TV or radio programs, or quoted in an article as a physician in newspapers and magazines, such individual cannot escape the implication of representing the medical profession and his conduct should be in keeping with the high standards of the profession.

(c) Sound judgment, good common sense and adherence to the Principles of Medical Ethics are expected of any physician when appearing on TV or radio programs, or in other media of public information, such as newspapers and magazines, in whatsoever capacity.

VII

Members of medical society speakers bureaus, because of the very nature of their assignments, may be interviewed or quoted by the communication media. This is not considered unethical conduct.

The members of these committees must be most circumspect and uphold the ideals of the medical profession.

VIII

At all times the doctor of medicine is expected to comply with the Principles of Medical Ethics. Section 10 of the Principles of Medical Ethics deals with relationships between physicians and the communications media. It says: "The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community." The Judicial Council construes

Section 10 as encouraging physicians to work with the communications media as an integral and important part of the principle of upholding the responsibility of the physician to society as a whole.

It shall be the responsibility of each county society to see that these Principles are not violated.

IX

Doctors of medicine are ethically and legally required to protect the personal privacy and other legal rights of patients. The doctor-patient relationship and its confidential nature must be maintained. With these considerations in mind, the physician may assist the representatives of these media in every way possible.

Laboratory Services

The following questions and answers are provided by the Judicial Council in response to inquiries raised by a number of medical societies.

Q. A laboratory is owned by a physician who spends a small portion of his time directing and managing its financial and business affairs. The laboratory work is performed by technicians and directly supervised by a medical technologist with little or no participation by the physician-owner. The physician's name is used in connection with the laboratory in a manner to create the appearance that it is owned, operated and supervised by a doctor of medicine. Is the physician engaged in an unethical activity? Would it make any difference if he were not the owner, but merely received compensation for his time? Or if he were a partner with the supervising technologist or participated without receiving any compensation or share of the profits?

A. In each of the situations set forth above the physician would be guilty of deception and unethical conduct in misrepresenting or aiding the misrepresentation of laboratory services performed and supervised by a non-physician, as physician's services.

Q. A laboratory, owned, operated and supervised by a non-physician in accordance with state law, performs tests exclusively for physicians who receive the results and make their own medical interpretations. Is it permissible for physicians to utilize the services of these laboratories?

A. The physician's ethical responsibility is to provide his patients with high quality services. This includes services which he performs personally and those which he delegates to others. A physician should not utilize the services of any laboratory, irrespective of whether it is operated by a physician or non-physician, unless he has the utmost confidence in the quality of its services. He must always assume personal responsibility for the best interests of his patients. Medical judgment based upon inferior laboratory work is likewise inferior. Medical considerations, not cost, must be paramount when the physician chooses a laboratory. The physician who disregards quality as the primary criterion or who chooses a laboratory because it provides him with low cost laboratory services on which he charges the patient a profit, is derelict in not acting in the best interests of his patient. However, if reliable quality laboratory services are available at lower cost, the *patient* should have the benefit of the savings. As a professional man, the physician is entitled to fair compensation for his services. He is not engaged in a commercial enterprise and he should not make a markup, commission, or profit on the services rendered by others.



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Alcohol, 1.4%

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DEMULCENT	●	●	●	●
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ANTIHISTAMINE		●		
LONG-ACTING (6-8 HOURS)			●	
NASAL, SINUS DECONGESTANT				●

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The Alabama Regional Medical Program: Planning Phase*

J. O. Finney, M. D.**

The Alabama Regional Medical Program for Heart Disease, Cancer, Stroke and Allied Diseases, an integral part of the University of Alabama Medical Center, is now active and in the planning phase of the project. Planning, as an ugly duckling, is void of glamour, but is necessary and when properly done may yield a graceful swan. For a clear understanding of Regional Medical Program planning in general, and items with specific bearing on our program in Alabama, your attention is invited to statements prepared by Dr. Benjamin B. Wells, Director of the Alabama Regional Medical Program, which appears in the form of tear sheets at the conclusion of this article. These sheets may be removed for retention in your personal file.

The purpose of RMP, simply stated, is to improve the quality of medical care available in a community by providing means for new developments in medicine to reach the patient with a minimum of delay, or "time lag," between discovery and application. A system for effective continuing education of physicians, improvement in diagnostic and therapeutic facilities, and an increase in the quantity and quality of medical and paramedical personnel would all represent efforts in the direction of satisfying the Regional Medical Program Act, Public Law 89-239.

For a community to participate in the program its needs must first be expressed and supported by documentary evidence, gathered and presented together with a plan to relieve the deficit, by representatives of the community and not by the RMP central office. The latter exists for the purpose of aiding, where possible, the communities in achieving their requirements to provide improvement in the quality of medical care in the stipulated categories.

The need for activity to be initiated at the local level prompted the State Advisory Committee to the Alabama Regional Medical Program to recommend that the County Medical Societies be requested to provide leadership throughout the state. Consequently, the President of each County Medical Society was requested to appoint a committee to consist of representatives from the society, and from the staff and administration of the hospital or hospitals concerned. It was conceived that such a committee might be developed on a county or multi-county basis and would relate specifically to matters pertaining to the Alabama Regional Medical Program. These committees form the first link in the chain between a community and our Regional Program. It was also considered plausible that this committee might serve as the nucleus around which the Comprehensive Advisory Health Council, recommended by the Committee on Socio-Economics and approved by the Board of Trustees and Board of Censors, could be formed.

Our Regional Medical Program has had excellent rapport with the Medical Association of the State of Alabama from the outset. In the summer of 1965, Dr. James G. Donald, then president of MASA, and Dr. S. Richardson Hill, Jr., Dean of the Medical College, collaborated on the appointment of an ad hoc committee to study the possibilities of such a program for this state, and later selected members to serve on the Advisory Committee to the Alabama Regional Medical Program. All Advisory Committee appointments, then and later, bore the approval of the State Board of Censors. The *positive* exertions of the State Board of Censors and its Chairman, the President of the Associa-

(Continued on Page 464)

*From the University of Alabama Medical Center, Birmingham, Alabama.

**Professor of Medicine and Associate Director, Alabama Regional Medical Program, University of Alabama Medical Center, Birmingham, Alabama.



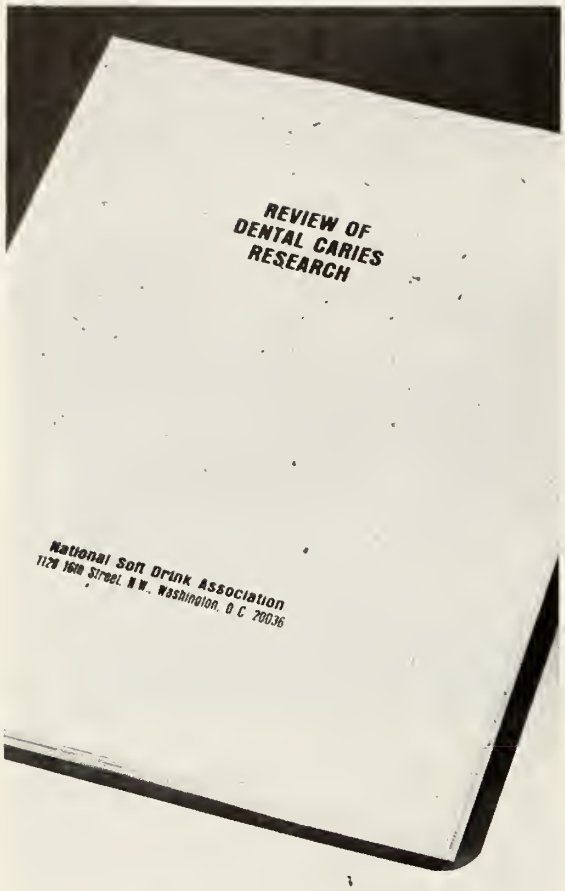
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REGIONAL MEDICAL PROGRAM

(Continued from Page 462)

tion, the Board of Trustees, the Committee on Socio-Economics and the staff of the central office of MASA in support of the efforts of the fledgling Alabama Regional Medical Program have not only been truly remarkable but remarkably effective. At the time of this communication the President of forty-three of our sixty-seven counties has appointed a committee to be concerned with establishing a relationship between their respective communities and the Program, a feat which would have been impossible of accomplishment in the time involved, without the pressure voluntarily applied by the Board of Censors through memoranda from its Chairman, Dr. John M. Chenault, and facile use of the W A T S line by the Executive Director, Mr. L. P. Patterson. As previously indicated, the initial function of these committees will be the establishment and documentation of community needs which may be satisfied by the provisions of the program. In short, a plan to improve quality of medical care must originate at the local level; in addition it must be approved by the County Medical Society concerned. Determination of project priority is also a function of the County Medical Society.

Through the development of a system of coordinated communication, recommended by the Advisory Committee, the central office of the RMP has and will continue to make every effort to afford the staff of MASA a current file on activities, for review by the Board of Censors, the Board of Trustees, concerned committees, County Society officers and any interested member of MASA. An attempt will be made to keep the membership as a whole informed on the progress of our RMP by publications in the *Alabama M. D.* and the *Journal of MASA* at appropriate intervals. Questions concerning the program may be directed to the central office of the Association in Montgomery, Alabama, or to the office of The Regional Medical Program, University of Alabama Medical Center, Birmingham, Alabama.

General Concepts For Regional Medical Program Planning*

Benjamin B. Wells, M. D.**

There is no established format for grant application under PL 89-239 (The Regional Medical Programs for Heart Disease, Cancer, Stroke, and Related Diseases.) All guidelines and policies that have been issued to date emphasize the desirability of a flexible and locally oriented approach. There are, however, certain basic concepts that arise from the law, legislative hearings, administrative interpretation, and current experience that should be known to all individuals who are concerned with the preparation of plans or grant requests related to the Regional Medical Program. These concepts are briefly presented in this paper. It should be understood that no one project is likely to encompass all of the ideal features, but inclusion of these elements wherever possible will add strength to the plan or grant proposal.

1. *The Base Line Situation.* Each plan or proposal should describe the patient care needs toward which the project will be directed. When possible, the need should be expressed in quantitative terms with both current and projected work loads. It is desirable to show existing health service resources in the relevant category, and to show how these will be used or coordinated. Population data, trends, and patient flow data will strengthen the plan further. When such base line survey materials are not available, the planning grant request should indicate the funds, personnel and other resources that will be required to define the problem. When applicable, a brief history of the local situation will be useful.

2. *Innovation.* Priority is given to requests that show initiative and a degree of innovation toward the solution of a local health-care problem. The document should indicate the way in which the plan or proposal would stimulate a more effective method for the delivery of health services than those in current use. Since the active participation of practicing physicians is essential to the success of all elements of the Regional Medical Program, plans must have initial review by the local Medical Society. A new committee of the County Medical Societies, now being established for this purpose, will give its opinion, supported by the Society, as to the relative urgency or the priority of projects before they are submitted to this office for final processing.

3. *Coordination.* A fundamental objective of the Regional Medical Program is the coordination and integration of health care facilities and groups with the aim of overcoming fragmentation and insularity. As indicated above, we shall seek the approval of local County Medical Society groups before entering into the development of any plans or grant proposals. We shall seek to secure active participation of practicing physicians in the area where a plan or study is to be carried out. Coordination must also be established with all relevant ancillary health service groups, with the administrative officers of health facilities, with voluntary health organizations, and with citizen groups who have a vital interest in the project. All proposals should reflect an earnest consideration of this objective.

4. *Education.* Another important objective of the Regional Medical Program is the creation of new health service manpower when possible and/or the upgrading of exist-

*From the University of Alabama Medical Center, Birmingham, Alabama.

**Professor of Medicine and Director of the Alabama Regional Medical Program, University of Alabama Medical Center, Birmingham, Alabama.

ing personnel through programs of education and training. In the preparation of all plans and project proposals, due consideration should be given to opportunities for training.

5. *Diversity.* As a matter of policy, it has been stated that a Regional Medical Program should be made up of diverse approaches to the problems of community health care. It is generally felt that a small number of major efforts is not as desirable at the present time as a somewhat larger number of diversified programs. This point need not concern the individual project planner, but it must be kept in mind by those of us who coordinate the entire Regional Medical Program effort.

6. *Relevant Objectives.* Each plan, project or proposal that enters into the Regional Medical Program should contain a clear indication of the manner in which the particular effort will contribute to the overall objectives of the Regional Medical Program. A point of unusual strength is added if the result of a project can be visualized as having nation-wide applicability. In general, the central staff of the Regional Medical Program will take responsibility for working out the details of relevance. It will be appreciated, however, if individual planners will indicate any ways in which they visualize their proposal as making a contribution to the general objectives of the Regional Medical Program.

7. *Evaluation.* Each plan, project, or proposal should, if possible, contain a description of methods that will be used to evaluate its effectiveness. Projects should be attainable, and it should be possible to measure progress toward attainment at regular intervals. This is a most important element, but it is often difficult to define and express. The central office staff will cooperate with planning groups in the development of evaluative mechanisms.

8. *People Involved.* The project or plan document should indicate the availability of personnel, both those presently in the locality and those who can be recruited. It is important that the central staff of the Regional Medical Program be provided a detailed curriculum vitae on each individual who will have a major role in any project. So far as possible, the document should indicate the type of participation, advice or interest on the part of all people who are listed. It is of special value to Regional Medical Program projects to show the interest and participation of individuals who operate outside of the University environment and who represent diverse aspects of the social, economic, and occupational structure in the entire Region.

9. *Budget Items.* In all plans and proposals that involve the expenditure of money, planners should show items of cost with as much accuracy as possible. It is especially important that personnel needs be indicated by occupational category, expected salary level, and proportion of time devoted to Regional Medical Program projects.

Items Having Specific Bearing on Planning For The Alabama Regional Medical Program

The Alabama Regional Medical Program is presently supported by its original Planning Grant. These funds are largely committed to the support of central staff, office facilities, consultants, essential communications, base line survey work, and general planning functions. Assistance to various groups is necessarily quite limited and confined entirely to planning functions.

For the immediate future, we anticipate the following major activities leading to full activation of the Alabama Regional Medical Program:

Phase I: Organization of the central staff and the designation of Subcommittees and Ad Hoc Committees to function in the various broad categorical areas. These committees will report to the Regional Advisory Committee which has been in existence for some time. The Subcommittees and Ad Hoc Committees will include individuals with specific experience and knowledge in the

categorical areas, and, as far as possible, they will be representative of various interests and geographic areas in the Region. These committees will be expected to develop written plans and proposals which will subsequently be brought before the Regional Advisory Committee for approval. They will, of course, be given all possible assistance by the central staff group.

Phase II: Development of a formal request for supplemental planning funds. It must be kept in mind that in this phase our emphasis is on planning functions, not on pilot projects or operational grants. Good planning will visualize specific future operations, but the emphasis will be on such matters as:

(a) Identification and quantitation of needs: patient care, educational, etc.

(b) Identification of existing resources, facilities, manpower, equipment, etc.

(c) Description of communication and transportation facilities and normal patient flow in the Region.

(d) Exploration of alternative methods for solving the various health problems in the Regional Medical Program categories, with notations of costs, efficiency, etc.

(e) Definition of geographic areas within which an operation should be undertaken.

(f) Determination of priorities between needs, projects, service groups, areas, etc.

(g) Assessment of acceptability of the programs proposed by both potential patients and health service personnel in the area involved.

(h) Surveys of social, economic, demographic, and other relevant factors.

(i) Provision of staff, consultants, and supporting personnel to accomplish the planning missions.

(j) And many similar activities. The planning grant request should visualize or foreshadow operational programs, but it must not request funds for operations.

There will be an inevitable tendency to become impatient with planning functions at a time when many individuals feel that we should be ready to initiate operational projects and pilot studies. Although it is our wish and our intent to shorten the planning phase as much as possible, the long term success and ultimate viability of the Regional Medical Program in Alabama will depend very largely on the care, skill, thought, and attention that is given to the planning phase. It is relatively easy to establish operations on the basis of well conducted planning; it is infinitely more difficult and wasteful of resources to attempt operations without a competent planning base.

Phase III: Operations and Pilot Project Functions. The elements of this phase will be generated during Phase II. Additional notes will be furnished as we gain further knowledge and experience.

The AMA's Health Education Service

Keeping up with current developments in the health fields would be an impossible task for school health educators if they had to pore over the many medical and science journals reporting this authoritative information every month. Yet health education programs would be stifled if they didn't have ready access to key developments.

The losers would be not only the students they are seeking to educate, but their eventual families as well.

Recognizing the importance of providing health educators with this up-to-date information so they can enrich their health education programs in schools, the American Medical Association's Health Education Department in January, 1961, inaugurated a service aimed at achieving this end.

It is the *AMA Health Education Service for Schools and Colleges,* a four-page bulletin now in its seventh year of continuous publication. Currently, some 20,000 copies are distributed to schools and colleges each month, a fact attesting to its usefulness and one especially significant since only one copy normally is provided to each school.

Each issue of the *Health Education Service* contains a dozen or more concise articles highlighting important health news from medical journals and other science publications from throughout the world—new medical discoveries, research findings, warnings about health fads and phony "cures," nutrition, physical fitness and general information concerning physical and mental health, for example.

The reference source for each article is listed, thus permitting health educators to obtain detailed information concerning topics of particular interest.

Those subscribing to the publication are asked to make periodic evaluations to assure that it is serving its purpose. These evaluations have produced high praise for its significant value in health education and expressions of appreciation of the AMA for providing this worthwhile service.

"The regularity of this sort of information from an authoritative source keeps me better informed on happenings in the area of community health and makes me a stronger teacher in this area," is one typical reply made by a health educator.

To be placed on the regular mailing list to receive the *Health Education Service,* an instructor concerned with school or college health education programming needs only write the Health Education Department of the AMA.

But medical societies or auxiliaries can fulfill a community service role by having an appropriate representative query local school officials to determine whether their respective schools wish to be added to the complimentary subscription list, if they are not already receiving the service. The representative then can forward the names of these schools, their addresses and ZIP codes to the Health Education Department.

The Service is sent only to schools, not individuals, because of the problems of keeping personal mailing lists up to date. Schools should be advised that they may reproduce the service locally, with appropriate credit to AMA, should they need extra copies for regular or special distribution.

The bulletin is provided to schools and colleges during the ten months when they are ordinarily in session as a public service of the American Medical Association.

Wichita Hospital To Train New Specialists In Family Medicine

Everybody has taken a turn at lamenting the demise of the family doctor. Now somebody is doing something about it.

It's true that the old-time family "doc" is disappearing. But a new type of comprehensive physician is being groomed to take his place, to do everything he did, and more, and do it better.

He will be called the specialist in family medicine, and he will be an authentic specialist. The American Academy of General Practice, national association of family physicians, for more than a year now has been leading a movement to establish family medicine as the 20th primary medical specialty. There is every indication this drive will be successful. It is supported by the American Medical Association and was advocated by a report of the AMA's *ad hoc* Committee on Education for Family Practice and the report of the Citizens Commission on Graduate Medical Education, the widely publicized Millis Commission.

The new specialist will be a specialist in breadth rather than in depth (as the other traditional specialties). He will serve as the primary physician and provide comprehensive, continuous care for all members of the family unit, utilizing an understanding of the behavioral sciences of psychology, sociology, anthropology and economics in addition to the usual clinical disciplines of medicine. He will practice preventive health care much more intensively than any physician now in practice, with the goal of eventually having an occurrence of illness be considered a medical "failure." He will emphasize ambulatory care and efficient utilization of community health services.

This new specialty will require a 3-year graduate program after the M. D., either an internship and 2-year residency or a 3-year residency where internships are not required for licensure. One of the first of these new graduate programs is at W e s l e y Medical Center, Wichita, Kans. It is structured precisely on the Core Content of Family Medicine, a blueprint for the new specialty. The Core Content, devised by the Committee on Requirements for Certification of the Academy, approaches definition of the new specialty on the basis of its central elements. From the "core" the specialist in family medicine will then conform his practice to the geographical and human requirements of his area.

Dr. G. Gayle Stephens, an Academy member in practice in Wichita, is director of the Wesley program. It is being built upon an existing 2-year general practice residency and the hospital's internship program.

Graduates of the Wesley program, one of the first such in the U. S., will be eligible to take a certifying examination in family practice now being readied for use. The first such examinations in the new specialty are expected to be given in the summer of 1968. Most of those eligible for the initial round of examinations will be doctors who have been engaged in family practice or full-time medical teaching for at least six years and who have completed at least 300 hours of approved postgraduate medical study.

This group, however, will become ineligible after 1975. Then only graduates of approved family practice residencies, such as the Wesley program, will be eligible for examination. All diplomates of the proposed new specialty board will have to be recertified by examination every six years. No other specialty has such a requirement.

According to Dr. Stephens, the new Wesley program will provide a more integrated graduate training period as stressed by the Millis Commission's report published in 1966. The Millis Commission, a citizens group sponsored by the AMA and headed by John S. Millis, Ph. D., president of Western Reserve University, was one of two major outside-of-medicine study groups reporting last year on the organization of medical service in the United States. Both stressed the need for production of many more primary or family-type physicians.



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Daily Emergency Medical Care To Be Analyzed

The application of the concepts of daily emergency medical care to the disaster situation will be analyzed at the First Biennial Symposium on the Management of Trauma and Disaster Medical Problems in Miami Beach, November 10-11, 1967.

Sponsored by the American Medical Association's Committee on Disaster Medical Care of the Council on National Security, the two-day symposium will be held at the Carillon Hotel.

Two general sessions, one workshop period, and a panel discussion covering identical subjects—shock and ventilatory dysfunction, fractures, soft tissue and vascular injuries, burns, cardiopulmonary injuries, injuries to the brain and spinal cord, and abdominal injuries—will be offered to the conferees.

The workshop period is designed so the individual physician may present case histories from his own practice of complications arising from trauma to a team of experts for discussion.

Capt. Theodore H. Wilson, Jr., M. C., U. S. N., Chief of Surgery at the Naval Hospital in Bethesda, Maryland, will address the opening day luncheon on the subject "The Essence of Sorting the Acutely Injured." Saturday's luncheon speaker will be Oscar P. Hampton, Jr., M. D., St. Louis, Chairman of the Committee on Trauma of the American College of Surgeons, discussing "Observations of Care of the Wounded in Vietnam."

Milford O. Rouse, M. D., Dallas, AMA President, will examine "Disaster Medical Care—AMA's Role" during Saturday afternoon's clos ng session.

Among the other physician speakers are: Truman G. Blocker, Jr., Executive Director and Dean of the University of Texas Medical Branch, Galveston; John M. Howard, Professor of Surgery, Hahnemann Medical College and Hospital, Philadelphia; Curtis P. Artz, Chairman of the Department of Surgery,

Medical College of South Carolina, Charleston; Preston A. Wade, Professor of Clinical Surgery, Cornell University, Ithaca, N. Y.

The program is acceptable for 12 accredited hours by the American Academy of General Practice and has been approved for retirement point credits by the Department of the Army, Navy, and the Air Force.

For additional information write: Committee on Disaster Medical Care, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610.

Delivery Analysis

Chances are good that the first child will be born sometime during the day, rather than after 5 p. m. This conclusion is based on a computer hour-by-hour analysis of 4,023 spontaneous deliveries reported by Carl L. Erhardt, Sc. D., and his colleagues in the City of New York Department of Health. Among women giving birth to their first child, spontaneous deliveries were consistently higher than average between 9 a. m. and 5 p. m. and somewhat light between 2 and 3 a. m. For women who had given birth to at least one previous child, deliveries were more unevenly distributed. The heaviest period was from 9 a. m. to noon and the lightest from 5 p. m. to midnight. Overall, 2,235 deliveries occurred between 3 a. m. and 2 p. m., and 1,788 from 2 p. m. to 3 a. m. The analysis also covered an additional 814 births that either were drug-induced or required caesarean sections. More than twice (2.3 times) as many deliveries involving induced labor occurred between 8 a. m. and 8 p. m. as during the night. With caesarean sections, 2.4 times as many deliveries occurred during the day, 45 per cent of them before noon.—*New York J. Med.*, Feb. 1, pp. 421-423.

"WANTED: Internist to associate with well established internist in Miami, Florida. Terms open. Write Lawson C. Johnson, M. D., 3298 Mary Street, Miami, Florida 33133.

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Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.



Dosage: 50-200 mg. (¾-3 grains) at bedtime.

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Pamphlets Every Doctor's Office Should Display

Many of the questions patients ask about "the pill" and other birth control techniques are answered in a new AMA pamphlet, "Contraceptive Drugs & Devices."

Containing the latest available facts on contraceptive drugs and devices, the publication replaces the former AMA pamphlet, "Is the Pill the Answer?"

The six-page pamphlet discusses the various types of oral contraceptives and intrauterine contraceptive devices, their effectiveness and the incidental effects which may occur with their use. It urges readers to obtain their physician's advice in selecting a contraceptive method that suits their individual needs and desires.

Review copies may be obtained from the Health Education Department. Quantity orders may be obtained from the Order Department at prices ranging from 14 cents each for 50-99 copies to 8 cents each for 1,000 or more.

* * *

To accommodate the influx of Spanish-speaking immigrants, particularly those from Cuba and Puerto Rico, the AMA has published three Timely Tips—"10 Ways to Cut Doctor Bills," "How to Be a Good Patient," and "Handle With Care" (Subject: Drugs, Prescriptions)—and the pamphlet, "Danger Lurks," which alerts individuals to the dangers of poisoning, in Spanish. The Timely Tips are offered at 20 cents per 100 copies of any version or 15 cents per 100 copies when 500 or more are ordered. Prices for "Danger Lurks" range from 10 cents for single copies to 5 cents a copy in lots of 500 or more. Orders should be directed to the Order Department.

* * *

To meet the continued heavy demand by medical societies, auxiliaries, individual physicians, medical schools and other schools and libraries, the AMA has scheduled its fourth printing—100,000 copies—of *Horizons Unlimited*, its popular health careers handbook. Since the 144-page paperback was introduced in April, 1966, distribution has averaged more than 16,500 copies a month. Total distribution now exceeds a quarter of a million copies. Copies of the complimentary publication and other health careers literature are available from the Program Services Department.

* * *

Physicians and their medical societies interested in establishing or expanding existing home care programs in their local communities will find the new publication, "Guide for Development and Administration of Coordinated Home Care Programs," quite helpful.

The 22-page guide, prepared by the AMA and seven other national health organizations, including the Public Health Service, outlines key steps essential in formulating and administering such programs to assure that patients' needs, as seen by their physicians, are met with the greatest possible effectiveness and efficiency, thus facilitating continuity of care.

Participation in development and publication of the guide is one phase of an expanded AMA program aimed at encouraging greater physician utilization of home health services for their patients and medical society leadership in establishing new programs.

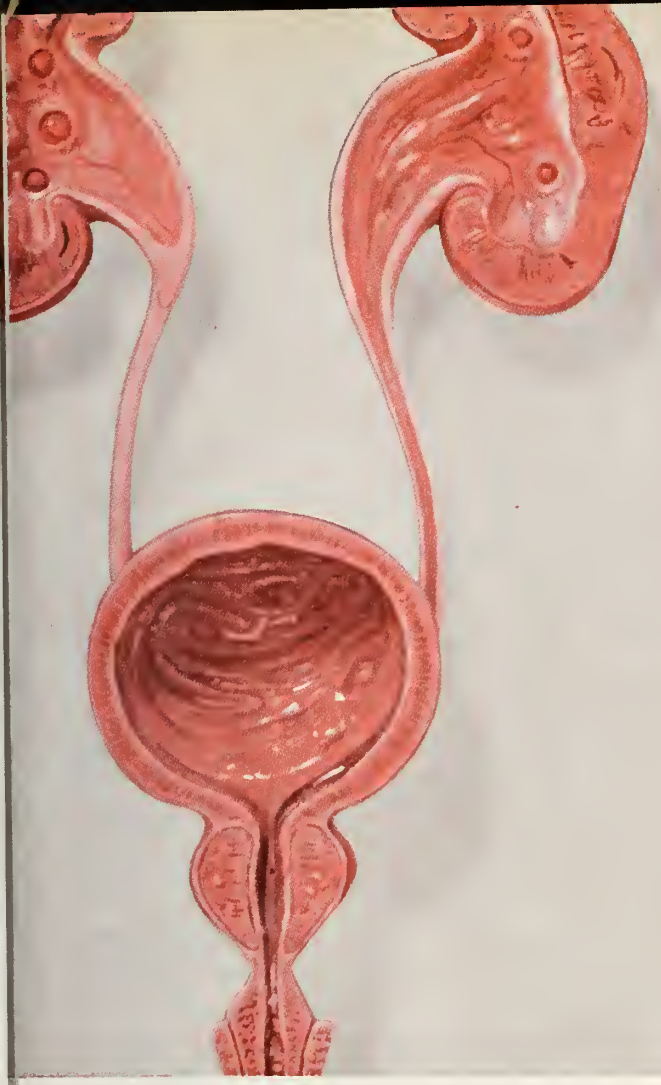
Medical societies and physicians may obtain reasonable quantities of the guide without charge by writing the Health Care Services Department of the AMA.

* * *

A revised version of the AMA pamphlet, "Mechanical Quackery," is now available from the Order Department.

The eight-page pamphlet, which contains illustrations of seven typical phony devices used by quacks in defrauding ill people hoping for a miraculous cure, describes common techniques used in this annual multi-million dollar "medical" swindle.

Quantity copies, available through the AMA Order Department, range from 9 cents a copy for 50-99 copies to 4 cents a copy when 1,000 or more are obtained.



Diagnosis:

cystitis?
pyelonephritis?
pyelitis?
urethritis?
prostatitis?

in any case,
usually gram-negative*

Therapy:

two 500 mg. Caplets® q.i.d.
(initial adult dose)

NegGram®

Brand of

nalidixic acid

a specific anti-gram-negative

eradicates most urinary tract infections...

- Low incidence of untoward effects; no fungal overgrowth, crystalluria, ototoxic or nephrotoxic effects have been observed.

- "Excellent" or "good" response reported *in more than 2 out of 3* patients with either chronic or acute gram-negative infections.[1]

*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas[2]... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

ations: Urinary tract infections caused by gram-negative and some gram-ve organisms.

effects: Mainly mild, transient gastrointestinal disturbances; in ional instances, drowsiness, fatigue, pruritus, rash, urticaria, mild ophilia, reversible subjective visual disturbances (overbrightness of , change in visual color perception, difficulty in focusing, decrease in acuity and double vision), and reversible photosensitivity reactions. d overdosage, coupled with certain predisposing factors, has produced convulsions in a few patients.

utions: As with all new drugs, blood and liver function tests are advis-during prolonged treatment. **Pending further experience, like most otherapeutic agents, this drug should not be given in the first trimester gnancy. It must be used cautiously in patients with liver disease or impairment of kidney function.** Because photosensitivity reactions have ed in a small number of cases, patients should be cautioned to avoid essary exposure to direct sunlight while receiving NegGram, and if a on occurs, therapy should be discontinued. The dosage recommended ults and children should not arbitrarily be doubled unless under the l supervision of a physician. Bacterial resistance may develop.

testing the urine for glucose in patients receiving NegGram, Clinistix® nt Strips or Tes-Tape® should be used since other reagents give a positive reaction.

e: Adults: Four Gm. daily by mouth (2 Caplets® of 500 mg. four times for one to two weeks. Thereafter, if prolonged treatment is indicated, sage may be reduced to two Gm. daily. Children may be given imately *25 mg. per pound* of body weight per day, administered in d doses. The dosage recommended above for adults and children l not arbitrarily be doubled unless under the careful supervision of a ian. Until further experience is gained, infants under 1 month l not be treated with the drug.

uppplied: Buff-colored, scored Caplets® of **500 mg. for adults,** conve- available in bottles of 56 (sufficient for one full week of therapy) and in s of 1000. **250 mg. for children,** available in bottles of 56 and 1000.

ences: (1) Based on 23 clinical papers, 1512 cases. Bibliography on st. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: icrobial Agents and Chemotherapy—1964, Ann Arbor, American y for Microbiology, 1965, p. 722.

Winthrop

hrop Laboratories, New York, N. Y. 10016

Nursing Home Licensure And Certification Program

Planning and Legislation

A considerable amount of planning by the Alabama Hospital Association, the Alabama Department of Public Health, and other related health groups was necessary for preparation and sponsorship of a bill enabling legislation for licensure of certain health institutions in the State of Alabama during the late 1940's.

The licensure program was officially created during the 1949 legislative session, when it enacted into Alabama Law Act No. 530. This state law regulated, through licensure, hospitals, sanatoria, rest homes, nursing homes, and related institutions. It was amended by Act 122 of the Alabama Legislature, Special Session, 1962. This amendment further clarified the purpose of the law and included, within the definition of hospital, domiciliary institutions, homes for the aged, intermediary institutions, and other health related institutions. It also provided penalties for violation of this provision.

The administration of this program was vested with the Alabama Department of Public Health. Authority to promulgate reasonable rules and regulations governing the conduct of institutions, as defined by the act, and responsibility for the administration and enforcement necessary in carrying out its provisions was also vested with the State Board of Health.

This act created an advisory board of ten members and was later amended by Act 122 to provide for an eleven man advisory board to assist in establishment of reasonable rules, regulations, and standards necessary to carry out its provisions. Board members were also to serve as consultants to the state health officer. This board meets at least twice each year at the call of the state health officer.

Initial Regulations

On January 13, 1950, at the second meeting of the advisory board, tentative regulations for general and specialized hospitals, nursing homes, and maternity homes were approved. After a public hearing, a joint meeting of the State Board of Health and the advisory board was called and regulations were officially adopted on January 31, 1950. By law these regulations became effective 30 days subsequent to their adoption.

Revised Regulations

During the years immediately following the adoption of the initial nursing home regulations, many substandard nursing homes came into existence. The total number of homes more than tripled, and progress became more difficult as the initial regulations became more and more ineffective. Early in 1957, however, the licensing authority formulated a revision to these regulations.

Revised regulations for nursing homes were officially adopted on October 9, 1957, and became effective 30 days later. Again the minimum requirements were elevated.

Increased emphasis was placed upon the physical plant and upon patient care with

the primary objective being as follows: (1) To improve quality of nursing care rendered in nursing homes, and (2) To provide a safe place of residence with a home-like atmosphere to nursing home patients. During the next few years subsequent to their adoption, the Alabama Department of Public Health and nursing homes in Alabama received national recognition for having developed and implemented a most progressive nursing home program—a program which was unequaled by most state regulating agencies and which surpassed most.

Progressive Years

Much progress has been made since inception of the licensure program. Achievement by institutions in meeting minimum licensure regulations in many instances was slow and painful to the owner, the administrator, and the health department. Generally, satisfactory progress and compliance has been achieved by most institutions within the scope of the licensure law.

In 1950 only 27 homes were licensed, all on a provisional basis. By 1959 91 homes were licensed, 7 held a regular license and 84 a provisional one. Currently, 174 nursing homes are licensed—148 hold a regular license, and 26 hold a provisional or probational license.

Reorganization

With the advent of Medicare and the expanding number of nursing homes in Alabama, it became increasingly apparent that certain reorganizational changes were necessary within the state health department.

The Bureau of Licensure and Certification was officially created August 15, 1966, when the State Board of Health authorized Dr. Ira L. Myers, State Health Officer, to make certain reorganizational changes within the Alabama Department of Public Health. On that date, the Hospital Standards Branch of the Hospital Planning Division became the Bureau of Licensure and Certification. The bureau is under the medical direction of Dr. Robert W. Robinson and consists of three divisions.

The Licensure Division, directed by Harold E. Harrison, is responsible for licensure of hospitals, nursing homes, maternity homes, domiciliary care facilities, and related medical institutions. A Certification Division, directed by Tigner S. Zorn, certifies hospitals, extended care facilities, home health agencies, and independent laboratories which wish to participate in the Health Insurance for the Aged Program (Medicare). A Clerical Division, directed by Mrs. Jean Formby, coordinates clerical activities and administrative functions of both the Licensure and Certification Division. Specialist consultants on the bureau's staff include Dr. Hal D. Broadhead, Certification Consultant; Miss Louise LeCompte, Nutrition Consultant; Miss Sandra Loper, Nursing Consultant; and Mr. Nick Yonclas, Physical Therapy Consultant.

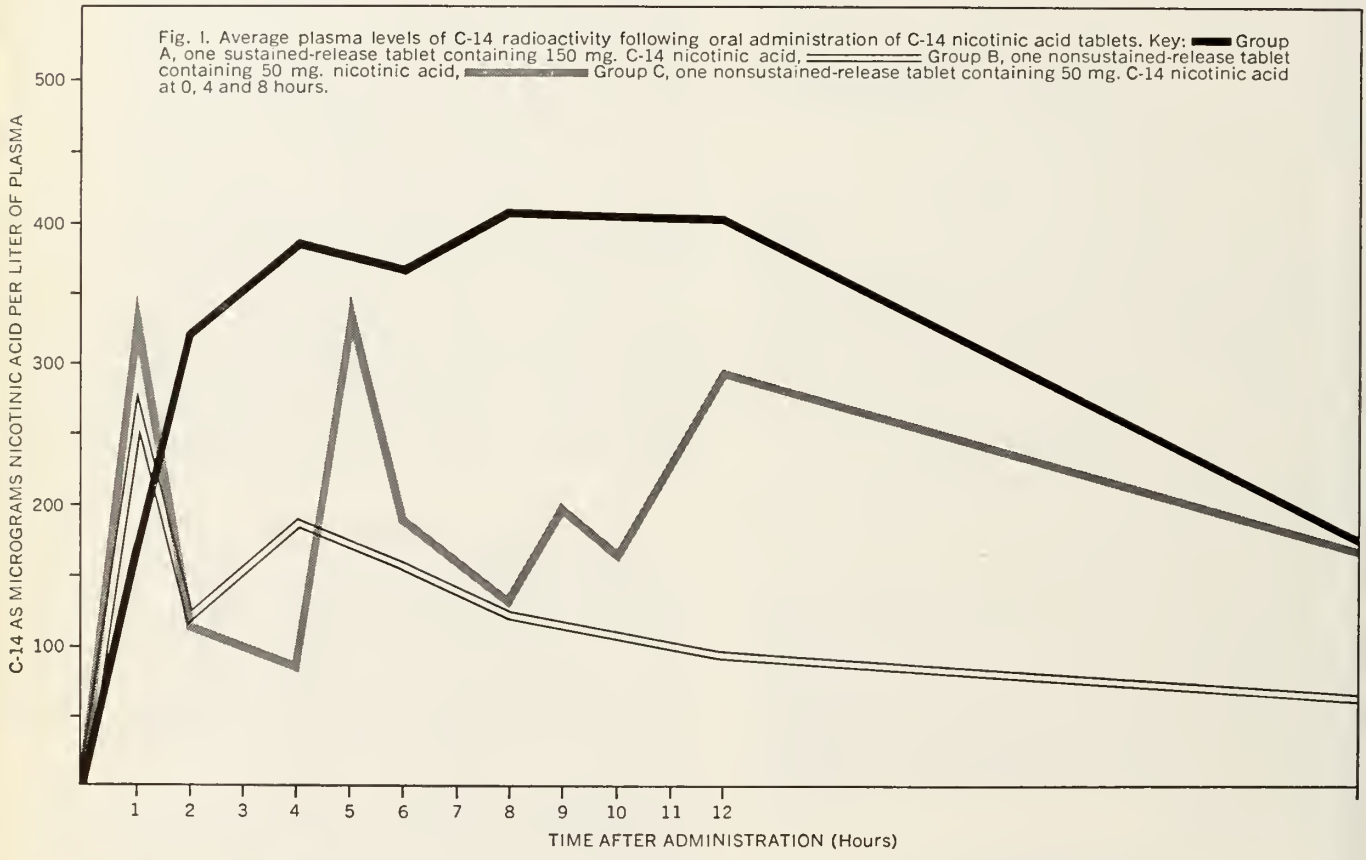
Medicare Certification

The certification program commenced in January, 1966, after Governor George C. Wallace designated the State Board of Health, acting through the Alabama Department of Public Health, as the official state agency to receive and administer any and all funds necessary for carrying out the State's responsibilities under the Health Insurance Benefits Program of the Social Security Act (Medicare). These responsibilities include: (1) Certification which consists of determining for the Secretary of Health, Education, and Welfare whether health facilities meet the requirements for participation in the Health Insurance for the Aged Program, (2) Consultation which consists of rendering advisory assistance to health care facilities regarding review procedures, development of patient care policies, procurement of consultant services, establishment of utilization review plans and committees, initiation of fire safety and emergency disaster plans, assistance in the establishment and maintenance of necessary fiscal records, assistance

(Continued on Page 482)

Sustained circulatory, respirator and cerebral stimulation for th

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═══ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.





(fewer absent doses by absent-minded patients)

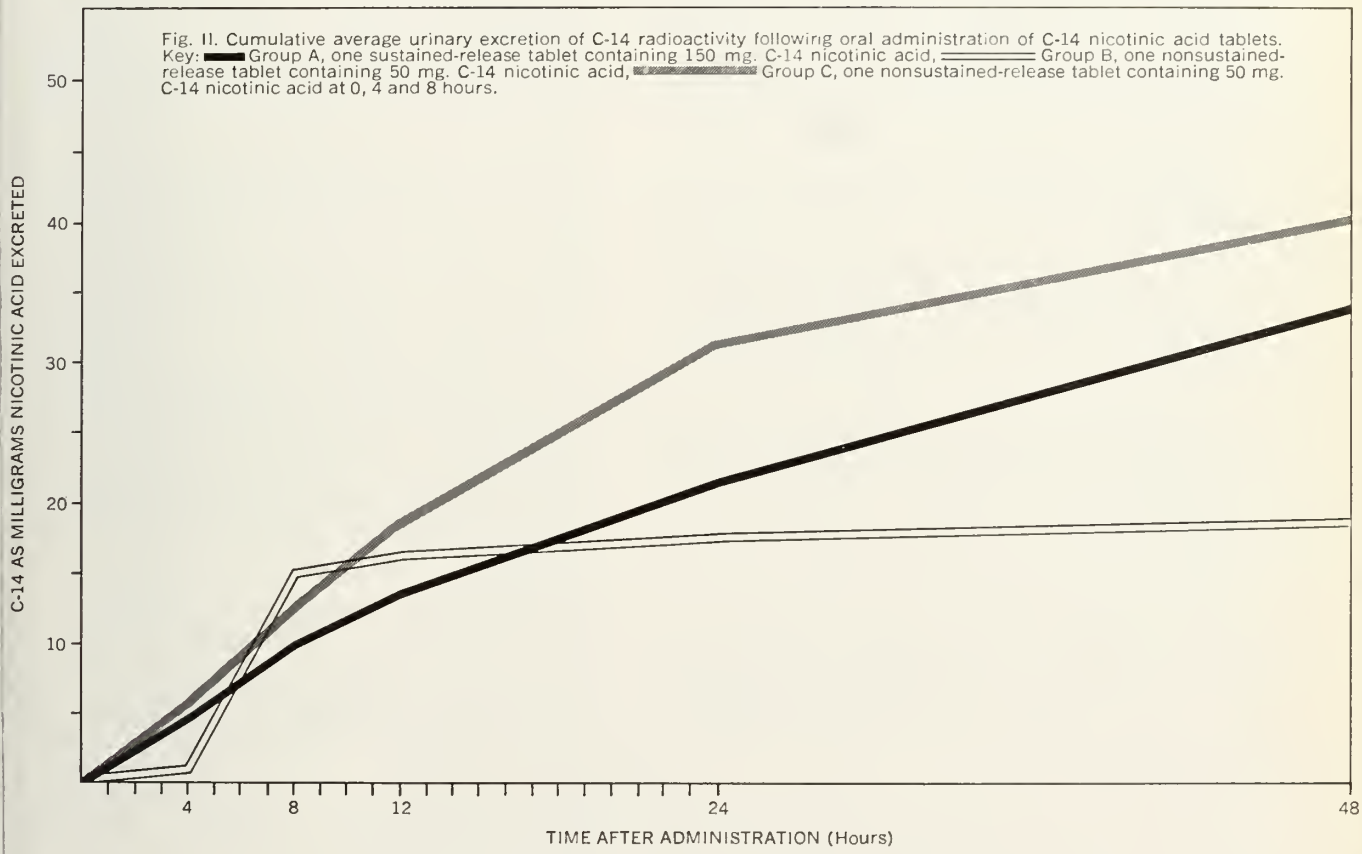
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate signs of senile confusion. Patients become more alert

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

(Continued from Page 479)

in the development of formal agreements with other health care facilities, and assistance to institutions to intensify recruitment efforts, training opportunities, etc. to meet Medicare and licensure requirements, and (3) Coordination which consists of relating licensure and Health Insurance Program activities with other programs, facilities, and services required for improving the quality of such services, the long range objective being that of "quality patient care." Coordination activities will be and are being undertaken to establish effective working relationships with other appropriate agencies and organizations to ascertain proper distribution of health facilities' services, manpower, etc.

At this time, over one hundred nursing home facilities have applied for participation in the Health Insurance Program; and over eighty facilities have been certified as extended care facilities representing over 53 per cent of the skilled nursing homes and approximately 60 per cent of the nursing home beds in Alabama. In the region, only Florida has more extended care facilities certified than Alabama; and it has over three hundred nursing home facilities.

Of the homes certified in Alabama as extended care facilities, all have met the following statutory requirements for certification: (1) The facility must be primarily engaged in providing skilled nursing and related services or rehabilitation services to in-patients; (2) The facility must have a written transfer agreement with one or more hospitals or have in good faith attempted to obtain such an agreement; (3) There must be patient care policies for the services it provides which are developed and reviewed by a professional group including at least one physician and one registered nurse; (4) Each patient must be under the supervision of a licensed physician; (5) Clinical records must be maintained on all patients; (6) The facility must provide 24-hour nursing service and employ at least one registered nurse on a full-time basis; (7) There must be appropriate procedures for dispensing and administering drugs and biologicals; (8) The facility must have in effect an approved utilization review plan; (9) The facility must meet the state licensure requirements.

Additional Requirements

In addition to statutory requirements, the law provides that the Secretary of Health, Education, and Welfare is authorized to establish such other health and safety requirements as he may find necessary. These regulations have been developed and are sufficiently important to summarize: (1) There must be an effective governing body, a qualified full-time administrator, and adequate administrative policies. (2) A registered nurse or a licensed practical nurse must be in charge of nursing activities during each tour of duty. (3) Restorative services must be provided for under medical direction. (4) The facility must have an arrangement for obtaining clinical laboratory, X-ray, and other diagnostic services. (5) Medically related social needs of patients must be provided for as well as purposeful activities. (6) Certain requirements related to the physical environment and housekeeping facilities must be met. (7) The dietary service must be directed by a qualified individual and must meet the daily dietary needs of the patient.

Unmet Need

Skilled nursing homes and extended care facilities are a most integral part of the Medicare program. For years, the medical profession, the nursing home and hospital association, and related professional disciplines have been talking about giving people the kind of health care they need—when and where they need it. The opportunity now presents itself—to bring these plans nearer reality and to provide facilities and services for the post-hospital patient who no longer needs to be hospitalized, but who requires skilled nursing care.

Increased facilities and services for out-

of-hospital convalescent care means that many patients now hospitalized could be transferred from intensive medical and nursing care to care that would be appropriate to their convalescence; thereby, freeing overcrowded hospital facilities for more effective deployment. Skilled nursing homes are rapidly elevating their standards of care in order to become qualified as extended care facilities thereby closing this gap in progressive patient care.

Generally speaking, nursing homes and related institutions in Alabama have been very progressive in elevating their standards of care and providing those services necessary to care for the aged and infirm. At this time, many nursing home facilities are undergoing expansion programs; several homes are in the development stage of constructing entirely new facilities to meet the increased demand of our aging population.

Continued Progress

The tremendous progress made in upgrading nursing homes since 1950 has been a coordinated effort on behalf of many state agencies, associations, and organizations, such as the medical profession, the Alabama Department of Pensions and Security, the Alabama Hospital Association, the Alabama Nursing Home Association, and the Alabama Pharmaceutical Association, to mention a few. Continued progress can only be achieved through a continuing working relationship with all agencies and organizations to achieve this basic objective, "quality patient care."

Many communities can be proud of the facilities and services currently being provided for the care of their loved ones. The progressive nursing homes operating as a part of the medical community are to be congratulated for their untiring efforts in behalf of their nursing home profession.

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA
Founded 1904
A DIVISION OF THE DEPARTMENT OF
PSYCHIATRY OF DUKE UNIVERSITY
Accredited by the Joint Commission on Accreditation
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Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

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Area Code 704 - 253-2761

BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

June 1967

Live Births / Deaths / Causes of Death	Number Registered During June 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	4,914	3,247	1,667	16.8	16.1	18.8
Deaths	2,349	1,589	760	8.0	8.3	8.4
Fetal Deaths	124	49	75	24.6	24.2	20.4
Infant Deaths—						
under one month	91	49	42	18.5	19.7	17.6
under one year	129	68	61	26.3	27.8	23.8
Maternal Deaths	1	..	1	2.0	6.3	5.5
Causes of Death						
Tuberculosis, 001-019	15	8	7	5.1	6.9	4.5
Syphilis, 020-029	4	1	3	1.0	1.7	0.7
Dysentery, 045-048						
Diphtheria, 055						
Whooping cough, 056						
Meningococcal infections, 057	3	3		1.0		0.7
Poliomyelitis, 080, 081	1	1		0.3	0.3	
Measles, 085					0.3	
Malignant neoplasms, 140-205	353	246	107	120.5	111.6	118.5
Diabetes mellitus, 260	43	27	16	14.7	15.2	13.6
Pellagra, 281						
Vascular lesions of central nervous system, 330-334	287	176	111	98.0	102.3	118.5
Rheumatic fever, 400-402	2	1	1	0.7		
Diseases of the heart, 410-443	773	580	193	264.0	305.1	258.0
Hypertension with heart disease, 440-443	95	50	45	32.4	40.8	33.6
Diseases of the arteries, 450-456	47	35	12	16.0	17.3	23.1
Influenza, 480-483	3		3	1.0	0.7	0.3
Pneumonia, all forms, 490-493	40	29	11	13.7	14.9	16.8
Bronchitis, 500-502	2	2		0.7	1.7	1.4
Appendicitis, 550-553	1	1		0.3	1.4	0.3
Intestinal obstruction and hernia, 560, 561, 570	7	4	3	2.4	4.8	4.5
Gastro-enteritis and colitis, under 2, 571.0, 764	3		3	1.0	2.1	3.1
Cirrhosis of liver, 581	12	9	3	4.1	6.2	6.6
Diseases of pregnancy and childbirth, 640-689	1		1	2.0	6.3	5.5
Congenital malformations, 750-759	28	20	8	5.7	4.1	4.1
Immaturity at birth, 774-776	29	14	15	5.9	6.8	4.8
Accidents, total, 800-962	198	134	64	67.6	62.5	71.3
Motor vehicle accidents, 810-835, 960	96	66	30	32.8	31.1	36.4
All other defined causes	355	229	126	121.2	112.6	122.7
Ill-defined and unknown causes, 780-793, 795	142	69	73	48.5	40.8	55.6

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

August 1967

Examination for intestinal parasites	2,061
Examination for malaria	2
Salmonella & Shigella (Blood-feces-urine-food)	283
Examination for tubercle bacilli	4,536
Examination for gonococci	2,429
Serological test for Syphilis	34,471
FTA	57
Darkfield	2
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	21
Staphylococcus (cultures for isolation and confirmation)	290
Examinations for diphtheria (isolation and confirmation)	149
Streptococci examinations	1,955
Mycology	26
Agglutinations	15
Vincent's infection	24
Complement fixation test	365
Test for Phenylketonuria (PKU)	7,171
Cytology	1,111
Water examinations	4,050
Milk and dairy products examinations	4,956
Sea food examinations	184
Examination for Negri bodies (smears & animal inoculation)	412
Virology	21
Rh Factor bloods	784
Miscellaneous	1,115
TOTAL	66,490

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1967

	July	August	*E. E. August
Tuberculosis	154	120	129
Syphilis	74	115	148
Gonorrhea	491	365	387
Chancroid	1	0	1
Typhoid fever	2	1	0
Undulant fever	0	0	0
Amebic dysentery	1	1	4
Scarlet fever & strep. throat	431	440	52
Diphtheria	0	1	0
Whooping cough	13	24	11
Meningitis	11	9	6
Tularemia	0	0	0
Tetanus	1	1	1
Poliomyelitis	0	0	1
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	28	13	20
Chickenpox	13	4	2
Mumps	30	55	17
Infectious hepatitis	21	19	39
Typhus fever	1	1	0
Malaria	0	1	0
Cancer	485	433	739
Pellagra	1	0	0
Rheumatic fever	16	3	15
Rheumatic heart	18	13	22
Influenza	28	26	18
Pneumonia	183	186	135
Rabies—Human cases	0	0	0
Pos. animal heads	3	2	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.



fall 1967

DORSEY

Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M.D., Director of Medicine.

this issue: smog, smaze or smust...

Smog, smaze or smust...effects of air pollution on upper respiratory tract

Nathan Flaxman, M.D., Diplomate, American Board of Internal Medicine, Chicago, Illinois

In Los Angeles it is *smog* (smoke and fog). In New York City *smaze* (smoke and haze). In El Paso *smust* (smoke and dust). The original factor was smoke plus such natural phenomena as fog, haze and dust, but air pollution has mushroomed from a smoke problem in our industrial cities into a major economic, esthetic and public health problem that affects practically every American locality and citizen.[1,2] Respiratory disease, of course, is by far the most costly effect of air pollution, for contaminated air can aggravate our illnesses, deplete our strength and shorten our life span.[1]

The greatest problem in dealing with solid wastes is that they are not quickly returned to dust. To aid the decomposing process, the great bulk of such waste is burned, polluting our air in the process.[3] Dr. Jack McKee of the California Institute of Technology[4] has calculated that in Los Angeles County, which has more than six million people, about three pounds of gaseous wastes per person per day (on a dry-weight basis) enter the atmosphere. This is twice as much as solid refuse disposal and six times as much as the contaminants in waste water. It is estimated that in New York City, 730 pounds of pollutants, a little over half the size of a compact two-door sedan of foreign make, is annually thrown into the air for each man, woman and child in the city.[5]

Air pollution is an evident factor, not only in the common cold and upper respiratory disease, but also in chronic bronchitis,[2] pulmonary emphysema,[6] bronchial asthma,[7] pneumonitis and lung cancer.[8] Its effect on the incidence of pulmonary tuberculosis is unproved,[9] although it is conceivable that the presence of various materials polluting the air migh do this. A siege of smog in Denver, the "mile higl city," in December 1965 was accompanied by respi ratory infection that doubled normal absentee rate in schools, factories and city government.[10]

While air pollution is only one factor, it has becom important in the causes of most of the afflictions o the respiratory tract. This has been shown not onl by the Denver occurrence, but also by detailed study of respiratory illness in a small group of 313 me



from October 1962 to May 1963 when there were 202 episodes involving the upper respiratory tract. The attack rate of illness was related in time to increased concentration of both smoke and sulphur dioxide in the atmosphere of the district in which the men lived.

Other factors often mentioned, include exposure to those who have colds, exposure to extreme changes of temperature, allergy and bacterial infection. However, when low individual resistance due to lack of rest, overwork, fatigue, improper or unbalanced diet, previous illness and emotional stress are included as causes, we enter the realm of somewhat obscure relationships. Much more emphasis can be placed on the role of polluted air.

The symptoms, signs and complications of involvement of the upper respiratory tract, especially the common cold, are the same regardless of the causative factor. Swelling of the lining of the nose, the scratchy dry throat, the discharge from the nose at first watery then thicker, discolored and more tenacious, the eyes tearing, and frequent sneezing are all part of the Number 1 human ailment. Concurrent or residual sinusitis when mucus is trapped there, middle ear involvement due to interference with drainage, laryngitis and bronchitis are complications of the common cold. The primary interference is with a most important function of the nose—the cleansing of foreign matter in the first line of "air defense" to prevent it from entering the breathing tract.

However, the diagnosis and subsequent decision on how to treat the patient so affected rests basically on the relief of symptoms that cause him the misery. The stuffed, runny nose, the clogged ears, and the harsh dry cough—all the symptoms that make common cold sufferers feel miserable and interfere with their sleep—can be alleviated with medications of the oral nasal decongestant/antihistamine combination type. The burning sensation in the throat, soreness of the chest and even chest pain can also be relieved by such medication. Rest in bed if there is fever (but confined to home at least), liberal fluids, uniformly warm surroundings and adequate humidity in the room, are all helpful adjuncts to the medication. Most common cold sufferers recover rapidly and are symptom-free in four to ten days.

Further treatment, altered by the fact that the affliction hangs on for more than the usual duration of the common cold, requires consideration of allergy, which is most frequently the prolonging factor. But air pollution itself may often be the culprit.

(Concluded on following page)

For nature's hazards:
nasal congestion
due to seasonal
allergies and
summer colds



Triaminic® *syrup*

Each teaspoonful (5 ml.) contains:

Phenylpropanolamine hydrochloride	12.5 mg.
Pheniramine maleate	6.25 mg.
Pyrilamine maleate	6.25 mg.

For nasal congestion regardless of cause, you can bring quick, lasting comfort to your little patients with Triaminic Syrup. You may occasionally encounter these *side effects:* drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. *Precautions:* the possibility of drowsiness should be considered by patients engaged in mechanical operations requiring alertness. Use with caution in patients with hypertension, heart disease, diabetes, or thyrotoxicosis.

(Advertisement)



At the Third National Conference on Air Pollution held recently, it was emphasized that this subject had received more attention in the past four years than in all previous history. Spicer,[11] an active participant at this conference, reiterated that it behooves the practicing physician to be aware of trends in respiratory disease and to accept a major role in community action relating to air pollution and respiratory health. By taking a positive stand physicians have been instrumental in the development of anti-pollution legislation. An outstanding example is Los Angeles where major steps have been taken by abolishing coal burning, and even banishing oil burning, seven months a year. Natural gas must be used instead and it must be used by industry when available. Backyard incinerators have been abolished in favor of landfill disposal, and building incineration ended except for a few expensive smokeless furnaces.[10] Concerted action can be taken against particular industrial nuisances. One company that disregarded complaints discovered its error when thousands of its credit cards were returned by irate customers who decided to patronize competing companies.[12]

Summary. Respiratory disease is the most important and most costly effect of air pollution, whether termed smog, smaze, or smust. Air pollution is an economic, esthetic and public health problem that affects practically every American locality and citizen. New sources of air pollution are invisible and odorless, but the harmful gases and liquid droplets are there. Triggered by sunlight, some of these undergo mid-air chemical changes and the results are even more irritating to the upper respiratory tract. The symptoms, signs and complications, especially of the upper respiratory tract, can be readily aborted by modern medication but may be unduly prolonged by polluted air. In steps taken to prevent this, the practicing physician can take a major role.

References 1. Anderson, R. J. Air Pollution, Respiratory Disease and the NTA, W. Virg. M. J., 60:332, 1964. 2. Angel, J. H., Fletcher, C. M., Hill, I. D., and Tinker, C. M. Respiratory Illness in Factory and Office Workers, Brit. J. Dis. Chest, 59:66, 1965. 3. Waste Disposal Problems Grow, Current Municipal Problems, 8:218, 1966. 4. McKee, J. quoted by Hills, G. U.S. War at Home-Fight Against Smog, Chicago Tribune, Sept. 26, 1966. 5. NYC Task Force Revives Concern on Air Pollution, Med. Trib. 7:23 (Sept. 17-18) 1966. 6. Flaxman, N. Pulmonary Emphysema, Med. Trial Tech. Quart. 1960 Annual, p. 221. 7. Heimann, H. Air Pollution and Respiratory Disease, Ann. Allergy 21:396, 1963. 8. Flaxman, N. Pneumonitis and Lung Cancer, Med. Trial Tech. Quart. 1965 Annual, p. 185. 9. Flaxman, N. Pulmonary Tuberculosis, Occupation and Trauma, Med. Trial Tech. Quart. 1959 Annual, p. 237. 10. Hill, G. U.S. War at Home-Fight Against Smog, Chicago Tribune, Sept. 26, 1966. 11. Spicer, W. S., Jr. Relation of Air Pollution to Disease, Arch. Environ. Health, 9:600, 1964. 12. Henderson, C. F. What You Can Do To Combat Air Pollution, Parents' Mag. 41:76, 1966.

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(Advertisement)



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The American Medical Association strongly opposed a suggestion that doctors' fees under medicare be based on Blue Shield schedules.

The suggestion was made to AMA officials while they were testifying before the Senate Finance Committee on the House-approved social security bill which includes amendments to the medicare and medicaid programs. Dr. Samuel R. Sherman, San Francisco, chairman of the AMA's Council on Legislative Activities, said there would be heavy opposition from the medical profession to any change from the present usual-and-customary fees.

Dr. Milford O. Rouse, president of the AMA, gave general approval to the bill passed by the House which, he pointed out, incorporated a number of changes recommended by the AMA. He said further substantive changes better could await the knowledge that one or two more years of experience would bring. However, he urged that consideration then be given to major changes in Medicare Plan B which covers physicians' services.

"We believe it is possible for the Congress, the medical profession and others interested in the subject to develop a new mechanism for delivering medical care to people over 65 that would be consistent with existing private sector mechanism," Dr. Rouse said.

" . . . the Congress realizes it has an open-end program with rising and perhaps uncontrollable costs. We believe that it is possible, and would be eminently practical, to devise another approach that could solve problems which beset Part B. One possibility, for example, might be to substitute for the Part B program a subsidy to all eligible persons, to be used for the purchase of private health insurance. Such an approach could have many advantages.

"The eligible over-65 patient would have a qualified private insurance program of his choice, at no greater expense than he has under the Part B Medicare program; carriers would have a greater responsibility for their own performance with an opportunity to exercise initiative; the physician would continue to deal with his over-65 patient in every respect in the same way as he did before the patient's birthday; and the Congress would have a program with defined costs, and one which would offer the nation a comparison of mechanisms in use to meet the problems of financing health care of the elderly."

Other points in the AMA testimony included:

—Beginning with the provisions of Title XVIII (Medicare), the (House) bill does not place the disabled of all ages under Medicare, as had been proposed earlier. We think the House acted wisely in establishing instead, a special Advisory Council to study the problems related to the inclusion of this group and to study the costs involved.

—In addition to the present method of payment for physician's services, the (House) bill provides two new options: either the physician can submit his itemized bill directly to the carrier, in which case payment of 80 per cent of the reasonable charge would be made to him, providing the full charge does not exceed the reasonable charge, or to the patient at his direction; or the patient may submit the itemized bill and be paid 80 per cent of the reasonable charge. From the program's inception, the AMA has

urged that the payment be permitted on the basis of an itemized statement of charges.

—Outpatient hospital diagnostic services would be transferred to Part B of Title XVIII and be subject to the deductible and coinsurance features. This is in keeping with our recommendation to the House Ways and Means Committee that out-patient services be included under Part B, and so remove the administrative difficulty of distinguishing between therapeutic and diagnostic services.

—The bill eliminates both the requirement for initial physician certification for hospitalization of Medicare patients and the requirement for physician certification for outpatient hospital services. The AMA recommended the elimination of initial certification and the subsequent recertification. We continue to recommend the addition of this second step to eliminate the requirement of any certification, since any need in this regard will be satisfied by the work of the medical review or utilization review committee.

—We believe that physicians, having been brought under Social Security, should be accorded the same privilege and opportunity for reaching a fully insured status as was accorded other professional groups when they were included in the program. Accordingly, we urge this Committee to consider the adoption for physicians of an "alternative insured status" similar to that permitted by the amendments of 1954 and 1956 which brought into the program many new groups of people and professional self-employed persons, including lawyers. Further, we urge this Committee to consider amendments that would "drop out" an appropriate number of years for physicians to make their eligibility for cash benefits both equitable and realistic.

—We must oppose the drug legislation offered before this Committee as amendments to H. R. 12080. We would suggest that rather than to enact such legislation it would be worthwhile at this time to study in depth, all the economic and therapeutic factors which enter into the use of prescription drugs.

* * *

The federal government has stepped up its campaign against cigarette smoking with the issuance of a new report and the appointment of a Lung Cancer Task Force.

A second Public Health Service report on the subject summarizes three and one-half years of research and study into the health dangers of smoking. The Department of Health, Education and Welfare said the report confirms and strengthens the conclusions of a 1964 report. The second report provides new technical data on the relationship of smoking to cardiovascular, chronic bronchopulmonary disease, cancer and other conditions.

—Cigarette smokers have substantially higher rates of death and disability than their nonsmoking counterparts in the population. This means that cigarette smokers tend to die at earlier ages and experience more days of disability than comparable nonsmokers.

—A substantial portion of earlier deaths and excess disability would not have occurred if those affected had never smoked.

—If it were not for cigarette smoking, practically none of the earlier deaths from lung cancer would have occurred; nor a substantial portion of the earlier deaths from chronic bronchopulmonary diseases (commonly diagnosed as chronic bronchitis or pulmonary emphysema or both); nor a portion of the earlier deaths of cardiovascular origin. Excess disability from chronic pulmonary and cardiovascular diseases would also be less.

—Cessation or appreciable reduction of cigarette smoking could delay or avert a sub-

stantial portion of deaths which occur from lung cancer, a substantial portion of the earlier deaths and excess disability from chronic bronchopulmonary diseases, and a portion of the earlier deaths and excess disability of cardiovascular origin.

Dr. Kenneth M. Endicott, director of the National Cancer Institute, is chairman of the Lung Cancer Task Force made up of 10 physicians and scientists.

Dr. Endicott said that the group will concentrate on research for the development of a less hazardous cigarette, prevention of occupational cancer due to exposure of workers to cancer-causing substances in their working environment, and improvement of the present low lung cancer cure rate of five per cent.

Quarterly On Cerebrovascular Disease Published By American Heart Association

The Winter-Spring 1967 issue of *Stroke—Current Concepts of Cerebrovascular Disease,* is now available to physicians, hospitals and medical schools without charge from local Heart Associations.

This is the first issue of the publications sponsored directly by the American Heart Association. The quarterly publication was established in 1966 and previously issued by the New York State Heart Assembly.

The publication, intended to offer interesting and practical information to the medical practitioner, will continue to carry one or two short, pertinent articles on the subject of stroke in each of its four issues a year.

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PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 28; Medical College of Alabama 1967; prefers associate practice in town of 10,000 population or less to fulfill scholarship requirements. Available July 1968. LW-80/1

Age 40; Faculty of Medicine, Lille, France, 1957; seeking solo, group, industrial, or associate practice. Available immediately. LW-80/2

Age 30; University of Tennessee 1965; seeking group or associate practice. Available immediately. LW-81

Age 32; Seton Hall Medical College 1963; seeking group, industrial, associate, or institutional practice. Available immediately. LW-82

Age 43; Medical College of Alabama 1967; seeking associate practice in town of 12,000 plus population in central or south Alabama. LW-83

Age 46; Hahnemann Medical College 1946; interested in location for associate or industrial practice (general practice and surgery). Available January 1968. LW-84

Age 37; University of Nebraska 1958; seeking industrial or institutional practice. Available immediately. LW-85

Age 29; Albert Einstein Coll. of Medicine 1964; seeking group practice. Available immediately. LW-86

Age 33; Marquette Medical College 1962; seeking group or associate practice (general practice with surgery). Available July 1968. LW-87

Age 36; University of Louisville 1965; seeking group, industrial, associate, or biomedical electronics practice. Available immediately. LW-88

Age 28; University of Missouri 1965; seeking group or associate practice. Available July 1968. LW-89

Age 50; Tulane University Medical College 1942; seeking solo, group, industrial, associate, or institutional practice. Available immediately. LW-90

Age 31; University of Miami 1963. Available immediately. LW-91

Age 28; Baylor University College of Medicine 1965; seeking group, associate, industrial, institutional, or aviation medicine practice. Available November 1967. LW-92

Age 29; Ohio State University 1964; seeking group, industrial, associate, institutional, or student health service practice. Available immediately. LW-93

Age 28; Medical College of Alabama 1966; seeking practice in town of less than 14,000 population to fulfill scholarship requirements. Available 1968. LW-94

Age 37; University of Miami 1959; seeking solo, associate, group, industrial, or institutional practice. Available immediately. LW-95

General Practice-Surgery—

Age 43; University of Louisville 1947; certified American Board; seeking group practice. Available immediately. LW-96

Dermatology—

Age 42; University of Wisconsin 1964; seeking solo or associate practice. Available July 1968. LW-97

Internal Medicine—

Age 33; Medical College of Georgia 1959; Board eligible; seeking group or associate practice. Available immediately. LW-98

Age 37; University of Pennsylvania 1956; Board eligible; seeking group or associate practice. Available immediately. LW-99

Age 36; Emory University 1963; Board eligible; seeking solo, group, or associate practice. Available immediately. LW-100

Age 34; University of Tennessee 1958; Certified American Board; seeking group, industrial, associate or academic position. Available mid-1968. LW-101

Age 52; Washington University, St. Louis 1941; Certified American Board; seeking industrial, associate or institutional practice. Available late 1967 or early 1968. LW-102

Pediatrics—

Age 38; Medical College of Virginia 1954; Certified American Board. Available immediately. LW-103

Age 31; Yale University School of Medicine 1962; Board eligible; seeking group or associate practice. Available immediately. LW-104

Age 36; Medical College of Alabama 1957; Board eligible; seeking group or associate practice. Available immediately. LW-105

Age 33; Univ. of Pittsburgh 1960; Board eligible; seeking associate practice. Available immediately. LW-106

LOCATIONS WANTED (Continued)

Radiology—

Age 52; Medical College of Virginia 1943; Certified American Board; seeking solo, group, associate, or institutional practice. Available immediately. LW-107

Age 36; University of Tennessee 1958; seeking solo, group or associate practice. Available June 1968. LW-108

Surgery—

Age 31; Medical College of Alabama 1961; Board eligible; National Board; seeking associate practice in town of 20,000-80,000 population. Available immediately. LW-109

Age 36; Louisiana State University 1955; Certified American Board; seeking group practice. Available immediately. LW-110

Urology—

Age 31; Tulane University 1961; Board eligible. Available July 1968. LW-111

Age 32; Medical College of Virginia 1961; Board eligible; seeking associate practice. Available March 1968. LW-112

Age 33; Johns Hopkins University 1960; seeking group or associate practice. Available July 1968. LW-113

Physicians Wanted

General Practitioners—

For partnership practice in clinic in town of 2,000 population in area of 10,000 population located in north-central Alabama. 40-bed hospital. PW-57

For assistant or associate in clinic located in town of 10,000 population located in northeast Alabama. 65-bed Hill-Burton hospital. PW-58

For associate practice in city of 6,000 population in area of over 10,000 population located in East-central Alabama. PW-59

For solo practice in county clinic located in East-central Alabama. Office, equipment and housing available. 70-bed Hill-Burton hospital and 22-bed nursing home. PW-60

For town in Southwest Alabama, approximate 1,000 population, in trade area of approximately 5,000 population, within 60 miles of large city of 35,000. Nearest hospital is located 18 miles away. Arrangements available for office space. Small industries and agriculture. Civic clubs and golf course nearby. Churches and school. PW-61

For town of approximately 1,000 population in population center of 10,000, located in Southwest Alabama within 90 miles of the Gulf Coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns

PHYSICIANS WANTED (Continued)

within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-62

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-63

Opportunity in city of 25,000 population located in Southeast Alabama within less than 100 miles of the Gulf Coast. Offices available in a medical center complex adjacent to large hospital. PW-64

For associate practice in city of 35,000 population located in Northeast Alabama. Interest in surgery is also desirable. PW-65

For group practice in town of 10,000 population in North Alabama. PW-66

For town in South Alabama with 20,000 trade area, within 40 miles of Gulf beaches and large city. Excellent hunting and fishing. Numerous industries offering stable employment for area. Furnished office available rent free. Hospital presently engaged in complete remodeling and expansion. Excellent cooperation between hospital and medical staff. PW-67

For town of 2,000 population in trade area of 5,000 located in south Alabama, within 24 miles of large city of 37,000 population. Nearest hospital (50 beds) is 12 miles away. One physician presently in practice in town. Office space available. Military base, farming, and small industries afford resources. Numerous civic clubs; two schools and five churches. PW-68

Needed for town of approximately 1,500 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-69

For town of approximately 1,000 population in Northwest Alabama, near Tennessee Valley waterways. New 15-bed clinic available. Centrally located near metropolitan areas. Extensive industrial developments. PW-70

For town with 1,000 population in trade area of 5,000 in Southeast Alabama. Nearest large city with population of 50,000 is 55 miles. New clinic available rent free. No physicians in the town. Hospitals in surrounding towns within 30 miles. Several churches and schools. PW-71

Opportunity in port town of 1,000 plus population in population center of 10,000 located in Southeast Alabama. Clinic available. Hospital located less than 20 miles away. Recreational advantages for water sports. Expanding industrial and farming area. Churches and schools. PW-72

About Arthritis . . .

George Washington suffered from it, as did the Ape Man two million years before him. The Romans treated it with warm baths and massage, a soothing treatment still accepted in today's medical circles. Benjamin Franklin sought relief in a medicine he brought back from France. Discovered in the sixth century, this same drug—colchine—is used today in the diagnosis and the therapy of one form of the disease.

Most people refer to it as "arthritis," a general term covering a wide spectrum of rheumatic ailments. I call it "everybody's disease." Most people past middle age have it in one form or another, to one degree or another. Many think of it as an old person's disease, though it strikes infants and children as well. One form afflicts women three times as often as men, while another chooses men four times as frequently. Fully 13 million Americans are its victim today, and another quarter of a million will join their ranks this year.

The outlook for the arthritis patient is, without question, happier today than it was even a few years ago. I find reason for great optimism. There is so much knowledge available, waiting to be applied. The main goal of the Arthritis Foundation is to shorten the gap between this new-found knowledge and its general application in the community.

Each day brings new insight into arthritis as a disease process. The Arthritis Foundation believes that it is no longer a case of *whether* a cure or preventive will be found, but *when.*

By Dr. William S. Clark, President

The Arthritis Foundation



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Versatile Program Set For AAP Annual Meeting October 21-26

What are some of the new and exciting developments in pediatrics? How can burns be cared for at home? What new child learning techniques have been developed recently? And what are the pediatric manpower problems facing this country today?

These and many other interesting and timely questions will be explored during the 36th annual meeting of the American Academy of Pediatrics in Washington, D. C., Oct. 21-26, 1967.

More than 4500 pediatricians, their families, and guests, are expected to attend the meeting in the Washington Hilton Hotel.

Highlighting the meeting will be a diverse scientific program, 24 round table discussions, 11 seminars, and a variety of technical and scientific exhibits.

Supplementing general session presentations, will be additional timely scientific programs presented Saturday and Sunday, Oct. 21-22 during the meetings of the Academy Sections on Allergy, Anesthesiology, Cardiology, Child Development, Diseases of the Chest, Surgery, and the Committee on Urology.

The Academy's annual business meeting will be held Wednesday afternoon, Oct. 25, at which time George B. Logan, M. D., Rochester, Minn., will be installed as president of the AAP.

Several awards will be presented during the meeting including the Borden Award for research in nutrition; two E. Mead Johnson Awards for outstanding pediatric research, and the C. Anderson Aldrich Award by the Section on Child Development.

The Academy is the Pan-American association of physicians certified in the care of infants, children, and adolescents. It has about 10,000 members in the U. S., Canada, and Latin America.

Sneaky Spider's Bite Painful, Can Be Serious

An innocuous-looking little spider named "The Brown Recluse" has recently been found to be even more dangerous than the long-feared "Black Widow."

The Brown Recluse has become enough of a health problem—several deaths and a number of serious bites—to become a subject of a research study and a recent report published in the Medical News Section of the Journal of the American Medical Association.

The spider tries to steer clear of humans—hence its name—but because it likes to hide in dark recesses of buildings, it comes under inadvertent human assault in bedding, shoes and other places where it seeks daytime refuge.

The Brown Recluse has been found in at least 13 states in the South, Southwest and Midwest, and is thought to be moving into other sections of the country. Because of the spider's tendency to retreat into wadded-up newspapers or blankets or other dark areas in daytime, it easily could be transported north by vacationers to states where it has not yet been seen.

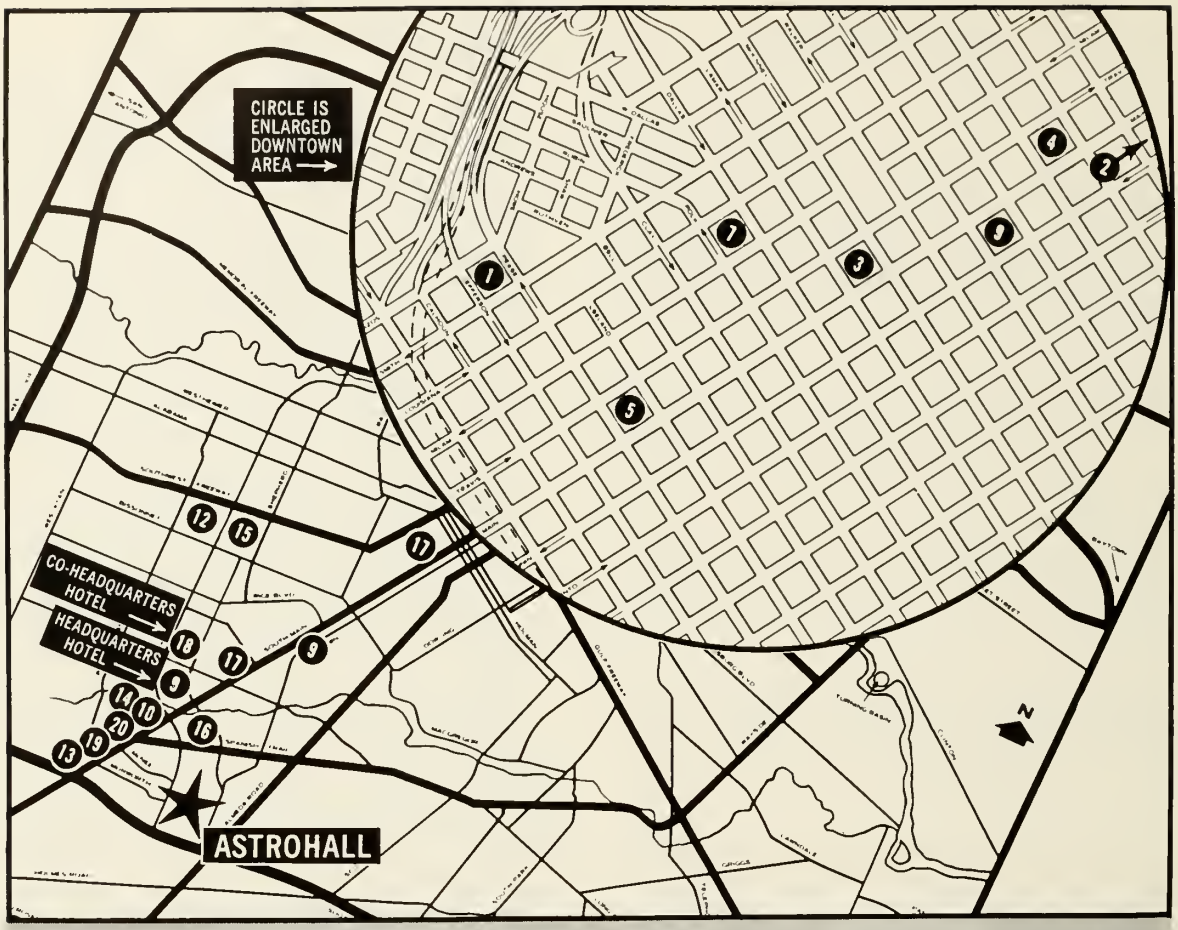
The spider may bite without the victim being aware of it. There is little early pain associated with a bite. Unlike the Black Widow, both males and females can inject venom.

Pain may be felt in two to eight hours, followed by inflammation of the skin, blistering, hemorrhage and ulceration.

Of the Brown Recluse's bite, one researcher told JAMA News:

"Several deaths have been attributed to this spider. Our data indicate a biological poison much more potent than known snake venoms, and probably more toxic than venom from the Black Widow spider." Exactly how the venom acts remains to be determined.

Treatment involves injection of a medication over a period of days and in more serious cases hospitalization.



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Confirmations will be mailed up to November 17.

Professional Courtesy

Adopted by Judicial Council

June 17, 1967

The custom of professional courtesy embodies the ancient tradition of fraternalism among physicians in the art which they share, and their mutual concern to apply their learning for the benefit of one another as well as their patients. The Judicial Council reaffirms and endorses the principle of professional courtesy as a noble tradition that is adaptable to the changing scene of medical practice.

Professional courtesy is not a rule of conduct that is to be enforced under threat of penalty of any kind. It is the individual responsibility of the physician to determine for himself and within his own conscience to whom and the extent to which he shall allow a discount from his usual and customary fees for the professional services he renders, and to whom he shall render such services without charge as professional courtesy.

The following guidelines are offered as suggestions to aid physicians in resolving questions related to professional courtesy.

1. Where professional courtesy is offered by a physician but the recipient of services insists upon payment, the physician need not be embarrassed to accept a fee for his services.

2. Professional courtesy is a tradition that applies solely to the relationship that exists among physicians. If a physician or his dependents have insurance providing benefits for medical or surgical care, a physician who renders such service may accept the insurance benefits without violating the traditional ethical practice of physicians caring for the medical needs of colleagues and their dependents without charge.

3. In the situation where a physician is called upon to render services to other physicians or their immediate families with such frequency as to involve a significant proportion of his professional time, or in cases of long-term extended treatment, fees may be charged on an adjusted basis so as not to impose an unreasonable burden upon the physician rendering services.

4. Professional courtesy should always be extended without qualification to the physician in financial hardship, and members of his immediate family who are dependent upon him.

Ice Cubes and Splinters

Splinters can be extracted painlessly by first numbing the site with an ice cube. Margaret E. Banks of Phoenix, Ariz., a registered nurse, reports that the same principle works well in removing splinters from children's feet. She tells the child he is going to play "Wade in the Ocean," and fills a bathtub ankle-deep with cold water. The youngster immerses his feet for a time, and the splinter can be taken out without a whimper.—*RN*, February, p. 20.



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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • November, 1967 • No. 5

Office of Publication
19 So. Jackson St. Montgomery, Ala. 36104
Subscription Price $5.00 Per Year
$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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(1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., *38*:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

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President's Page



Dr. E. Bryce Robinson, Jr.

Communication

The other day we were talking to a well known and eminently successful business man in Alabama. He has been a long-time and great friend to medicine and one of our best supporters. He says, "Doctors don't talk to their patients any more. They don't explain things to patients." What he was talking about was inadequate communication. We believe that today in all too many instances he is absolutely correct.

The keystone to good and desirable doctor-patient relationship is adequate communication on the part of the doctor. Without this, the diagnosis and therapy for patients can frequently be inadequate, unsatisfactory and unsuccessful, certainly as far as the patient is concerned.

In the years gone by when doctors did not have the advantage of modern, scientific medicine and techniques, they had as their most important item in the diagnosis and treatment of patients good communication. They greeted the patients in a kindly manner with a friendly word and explained things to them. Today, unfortunately in rapidly changing times and the busy pace by which we live, too much of this is lost, or in the hustle and bustle of a busy everyday practice, it is bypassed.

Where there is a good doctor-patient relationship, the chances of a malpractice suit are very small. We know of a few instances where there was an actual legal liability on the part of the physician, but because of excellent doctor-patient relationship, no litigation was ever started.

Patients today are quite medically sophisticated. Many times each day newspapers, on radio and television and in weekly and monthly magazines, medicine is referred to frequently. Modern medicine, "wonder drugs," scientific advances are feature stories and in many instances produce headlines. This was not true 25 years ago. Because of this, it is even more important that we establish adequate communication with all our patients.

Fortunately today, county medical societies, state medical societies, and the American Medical Association have better communication with all segments of the public and especially government. This was not the situation 30 years ago. We were quite reti-

cent to talk with them. Now we notice quite frequently, especially with the American Medical Association there is a continuing "dialogue" going on with the Federal Government. This is good and desirable! However, we do not like the word "dialogue." Much to be preferred is the word "communication." To me, this connotes adequate exchanges of information, opinions and ideas in person, by telephone, telegraph and yes, even by radio, television and newspapers.

Unless we communicate effectively with our patients, they have an inadequate understanding of our aims, interests and objectives in solving their health problems. Also, unless we communicate the same things to the public and to the government, then we will not be wholly successful in providing the best health care obtainable to all people in the United States.

Take time to talk to all of your patients, explain things to them. Answer their questions. Also take time and the effort to help promote the objectives of American medicine with the public and government. Be sure they receive accurate and correct information.



E. Bryce Robinson, Jr., M. D.,
President, The Medical Association of the State of Alabama

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The Woman's Auxiliary

Charles Dickens gave some good advice to physicians and their wives when he said "Reflect upon your present blessings, of which every man has many; not on your misfortunes, of which all men have some."

Members of the Woman's Auxiliary are approaching this Thanksgiving season by counting our blessings and opening our hearts to the millions who live in poverty, hunger and disease, by designating November as International Health Activities month.

We are aware that more than 2,000 American physicians have given up a rewarding medical practice at home to serve in remote areas of the world to bring hope and life to people who otherwise would live and die having never seen a doctor or even a pill.

In order to serve these people, the doctors must have drugs, instruments and surgical supplies. Our International Health Activities program is made to order for helping to meet their needs.

One part of this program is to collect sample drugs from physicians' offices. All of you have sample drugs that you will not use. Auxiliary members will visit your office, collect these unused precious drugs and send them on their way through the World Medical Relief Foundation. We would also like to have any old forceps, scissors, or other instruments that you no longer use.

Hospital gowns for the Catholic Mission Board and the Christian Medical Society are in continual demand. Certainly, no doctor's wife would want to "take the shirt off her husband's back," but we would like to have any old shirts that you can no longer wear. By removing the collar and cuffs and adding a little bias tape, we can make useful hospital gowns. We can also use discarded sheets to make much needed bandages.

Our project would not be complete without including something for S. S. Hope, the white hospital ship that brings hope to millions. Jim Murry of the Los Angeles Times,



Mrs. James C. Guin, Jr.

described Hope as the ship that sails the uncharted waters of ignorance, poverty, fear and disease, carrying a cargo of new legs, new eyes, new hearts, new lungs, new livers and new hope, and flies the flag of humanity.

The Auxiliary has a "Hope Chest" and I take it with me to Auxiliary meetings throughout the state. Everyone is invited to make a contribution. At the close of the year, the money in this chest will be sent to the S. S. Hope as our gift of love in honor of Alabama physicians who have served on this ship and as m e d i c a l missionaries throughout the world.

We invite you to join with the Woman's Auxiliary and help us to celebrate this Thanksgiving season by sharing our blessings with others.

Most sincerely,

Kay Guin

Mrs. James C. Guin, Jr.
President

Dr. Gray Heads Cancer Society in Alabama

Dr. Hugh Gray of Anniston, former president of the Medical Association of the State of Alabama, has been elected president of the American Cancer Society, Alabama Division, Inc., succeeding Dr. W. D. Anderson of Tuscaloosa.

The Alabama Division Board of Directors elected Dr. Gray to serve during the society's fiscal year ending next August 31, along with three vice presidents, Melvin E. Dobbs, Montgomery businessman; Dr. John Day Peake, Mobile, and Redus Collier, Decatur insurance company executive. P. O. Davis of Auburn was reelected secretary-treasurer. Mrs. Lillian G. Meade of Birmingham is executive vice president.

Dr. Ernest Moore of Montgomery and Dr. J. A. Cunningham of Birmingham are newly elected members of the board.

The board announced grants totaling $38,867 including: $15,500 for drug care of medically indigent cancer patients; $4,000, transportation of patients to state aid clinics; $5,000, summer student training program, University of Alabama Medical Center; $1,500, University Medical Center Tumor Clinic; $1,000, speech and hearing center, University Medical Center; $1,500, dressings for cancer patients; $2,400, speech therapist for training laryngectomees; $1,800, Visiting Nurses Association, Jefferson County; $1,200, VNA, Mobile County; and $5,467 as a payment on equipment for analysis of isotopes in use at the Medical Center. The Division previously paid $5,500 on the $10,967 total cost for this equipment.

Dr. Gray, a native Alabamian and a graduate of the University of Alabama and the University of Michigan Medical School, is a general surgeon and visiting surgeon to Anniston Memorial and Stringfellow Memorial Hospitals. He has served as a trustee of Stringfellow Memorial Hospital for many years.



Dr. Hugh Gray

He is a member of the board of censors of the Medical Association of the State of Alabama, a director of Blue Cross-Blue Shield of Alabama. He is a past president of the Calhoun County Medical Society and the Alabama Chapter of the American College of Surgeons.

Other board members in addition to the officers are Dr. W. D. Anderson, Tuscaloosa; Colonel C. W. Daugette, Jr., Gadsden; James Faulkner, Bay Minette; W. Lyle Hinds, Montgomery; Dr. Howard L. Holley, Birmingham; Henry P. Johnston, Birmingham; Cyrus Kitchens, Oneonta; Dr. J. O. Morgan, Gadsden; Dr. William M. Murray, Birmingham; Dr. Ira L. Myers, Montgomery; Dr. E. V. Smith, Auburn, and Dr. Howard Walker, Jr., Mobile. Dr. J. P. Chapman, Selma, E. C. Easter, Birmingham, and Dr. T. Brannon Hubbard, Sr., Montgomery are honorary directors.



Editorial
COMMENT

Is Now the Time for Thanksgiving?

If for no other reason than the fact that the holiday falls within this publication period, it is appropriate that we pause to determine whether events of the past twelve months are causes for thanksgiving or gloom. At first glance the scoreboard would indicate that the pluses are about equal to the minuses but a more penetrating study unmistakably proves that this is, indeed, a time for gratitude.

On many fronts the Alabama physician has achieved great gains. He has never stood higher in the public esteem. He has won new friends in the secular and paramedical world, and cemented some old friendships more firmly.

Economically the doctors' advances have paralleled or exceeded those of his fellowmen, primarily because he is willing to work longer hours on more days of the week, but also because the income of his patients continues at a high level. More people are demanding more medical care than ever before in the history of the world.

In almost every arena, Alabama physicians have advanced their causes. Nowhere is this more evident than in the political-legislative field, both at the local and national levels. The rapport between the Medical Association of the State of Alabama and the governing forces of this State has never been more cordial. The same can be said for the National Congress, where Alabama members of Congress have been most responsive to the desires of the medical profession.

Appropriations to the public and mental health programs of Alabama have far exceeded the fondest expectations. Hospitals and other health facilities are being constructed throughout the State without abeyance. Even the most poverty-stricken rural communities are being given access to the most advanced medical procedures. All of this is being done without depriving the physician of his leadership or his dignity.

The Medical College of Alabama continues to enlarge its stature as a center of medical learning and the fallout of knowledge gained in its numerous research programs accrues to the benefit of all Alabama physicians and their patients through its continuing education programs.

The County medical societies and the State association are endowed with inspired leadership, dedicated men who have labored to bring about the achievements enumerated above.

For these accomplishments—and for these men—Alabama physicians can truly be grateful.

The "Common Man" Bunk

Of all the hogwash that daily descends upon the citizenry from the Great Society, surely the most offensive is the nauseating concern voiced for the "common man." Some of the welfare-minded lame brains north of the Potomac have even suggested that this should be the "Century of the Common Man."

To give special consideration to the so-called "common man" is to give consideration to mediocrity, and if there was ever a time in American history when this nation needed something far better than mediocrity, that time is now.

Just what has the "common man" done to merit this lavish attention? Nothing. To the contrary, it was "uncommon men" who have made this country what it is today.

Apparently those who espouse the "common man" concept are thinking in terms of all men being equal. That's a lot of bunk too, no matter what the Supreme Court, LBJ or anybody else might say. A country composed of men and women who are equal, who all fall into the category of "common people," might survive 15 minutes if it was lucky. And it would be a dreadfully dull 15 minutes.

The point to be made here was made much more effectively a few years ago in a speech by former President Herbert Hoover. Read carefully what he had to say:

"Let us remember that the great advances have not been brought about by mediocre men and women. They were brought about by distinctly uncommon people with vital sparks of leadership. Many of the great leaders were, it is true, of humble origin, but that alone was not their greatness.

"It is a curious fact that when you get sick you want an uncommon doctor; if your car breaks down you want an uncommonly good mechanic; when we get into war we want dreadfully an uncommon admiral or general.

"I have never met a father or mother who did not want their children to grow up to be uncommon men and women. May it always be so."

We can reach but one conclusion in our mind—those who champion the cause of the "common man" are not in the least uncommon themselves.

Who Commits Suicide?

The National Vital Statistics System of the Public Health Service has done an exhaustive and fascinating study of suicide patterns in this country from 1949 to 1964. What this study turned up could be meaningful to members of the medical profession who frequently are in contact with suicide-prone people.

Based on material accumulated in this research it was determined that every 25 minutes an American dies by his own hand. Suicide ranks among the 12 leading causes of death in the country. It ranks fourth in the 15-24 and 24-44 age groups, but this is a misleading statistic because it reflects the smaller number of deaths from other causes in these groups.

The survey not only dwelled on the number of suicides, but it went further in an attempt to pinpoint the most likely persons who would take their own life, and how, when and where they would do it.

A few of the conclusions are worthy of passing on. They include:

1. The suicide rate among white males is substantially greater than in any other category. The rate in this category is 17.5 suicides per 100,000 population. Suicides by nonwhite males was only 7.5. Among women the

rate was 5.2 for whites and only 1.9 for non-white females.

2. Almost one-half (47 per cent) of all suicide victims die of self-inflicted gunshot wounds. A very distant second is hanging and strangulation (15 per cent); next is analgesic and soporific poisoning (12 per cent), and then poisoning by other gases, notably motor vehicle exhaust gas (10 per cent).

3. More suicides are committed in April than any other month of the year, with March and May next in line. Fewer suicides are committed in December than any other month.

4. The suicide rate in Nevada far exceeds that in any other state. The rate there is 26.2 per 100,000. Only two other states had a suicide incidence greater than 15 per 100,000. They were Wyoming, 16.3, and California, 15.6. The states with the lowest suicide rates are Rhode Island, 6.4; Mississippi, 6.5; South Carolina, 7.1. Alabama ranked 41st in the nation with a ratio of 8.6.

One other interesting statistic included in the survey was that while three times more men than women commit suicide, three times more women than men unsuccessfully attempt suicide.

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

Letter to the Editor

DISINTEGRATION

Methods used by politicians are creating public hysteria, lack of faith in the future existence of the nation, and are causing prejudice, hatred and internal dissension between various races and religious elements and are destroying America's heritage, initiative and integrity.

Today the nation is governed largely by decisions rendered by politically appointed Supreme Court and Federal judges.

The United States Supreme Court has imposed a whole series of restrictions on police and lower courts in their dealing with suspected criminals or defendants. These restrictions have resulted in a further increase of crime rate throughout the nation.

Repeatedly, confessed rapists, murderers and other criminals have been dismissed in state courts. Reason: Police had not followed the U. S. Supreme Court ruling that arrested individuals must be informed of their rights to remain silent and have the advice of counsel before making any statement.

The failure of Congress to demand a balanced federal budget and the U. S. Justice Department to protect the nation from hazards associated with civil rights and other demonstrations has rendered the United States of America vulnerable to disintegration into a bankrupt, socialistic welfare mobocracy.

C. C. McLean, M. D.
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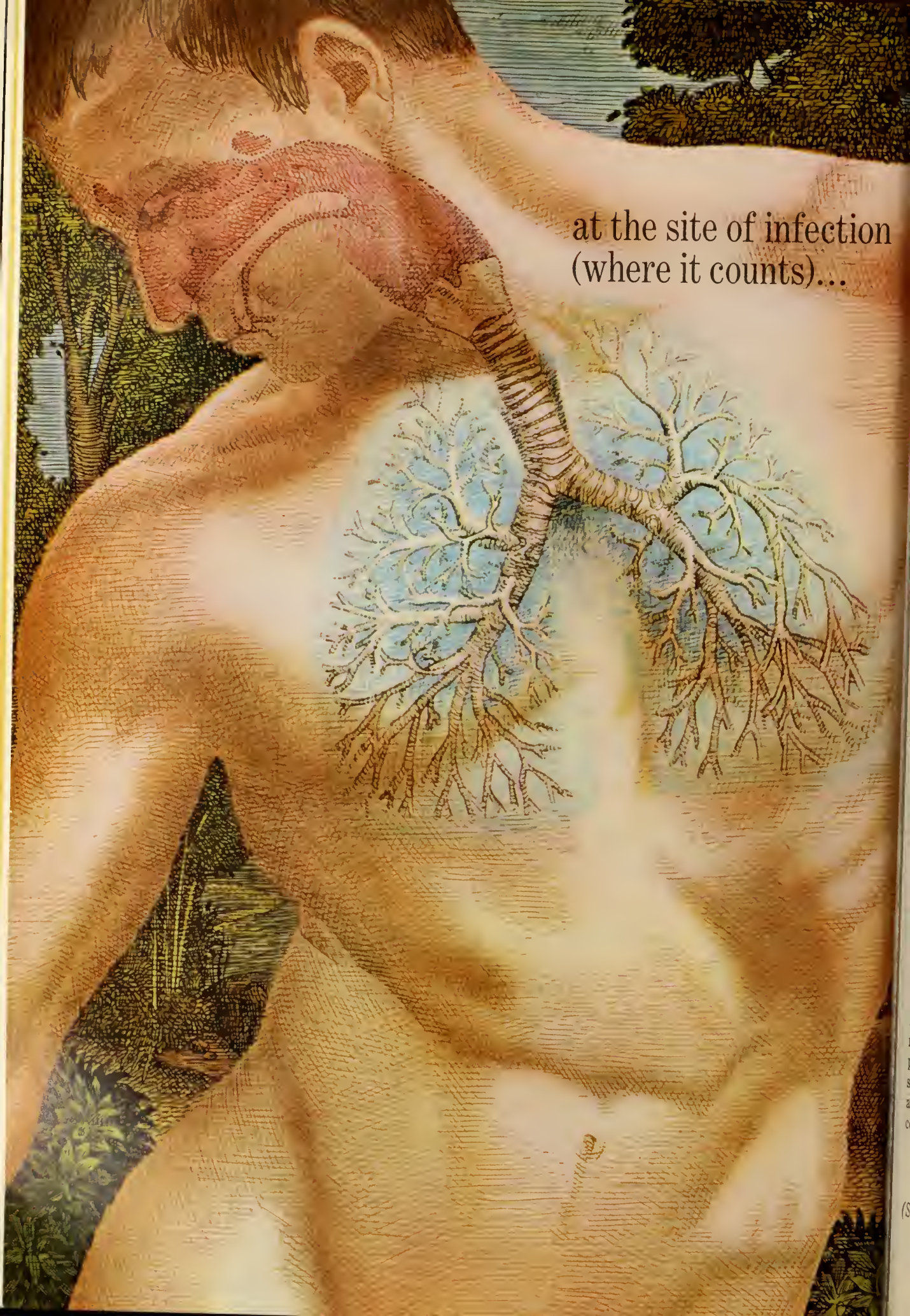
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Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

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Indications: Ilosone is indicated in infections caused by micro-organisms sensitive to its action—especially staphylococci, hemolytic streptococci, and pneumococci.

It has been effective in streptococcus infections, particularly acute bacterial pharyngitis and tonsillitis; staphylococcus disease, including soft-tissue infections, furunculosis, abscesses, cellulitis, carbuncles, and wound infections; pneumococcus pneumonia and acute bronchitis with pneumococci on culture, bronchopneumonia, and otitis media.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents; surgical procedures should be performed when indicated, and large doses of the antimicrobial agents should be employed.

Penicillin is the drug of choice for syphilis and gonorrhea, but Ilosone in multiple 500-mg. doses has been useful in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Known history of sensitivity to this drug; preexisting liver disease or dysfunction.

Adverse Reactions: Hepatic dysfunction with or without clinical jaundice has been reported infrequently. Changes in liver function tests indicative of intrahepatic cholestasis appear to be the result of individual idiosyncrasy. Findings subsided when treatment was discontinued. Occasionally, symptoms simulated extrahepatic obstructive jaundice or the colic of biliary tract disease.

When jaundice appeared to be related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalin flocculation and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Gastro-intestinal disturbances not associated with hepatic effects and occasional allergic manifestations (urticaria, skin eruptions, and, rarely, anaphylaxis) have been reported. The normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Administration and Dosage: Ilosone is administered orally.

Infants and children under twenty-five pounds, 5 mg. per pound every six hours; twenty-five to fifty pounds, 125 mg. every six hours. Adults and children over fifty pounds, 250 mg. every six hours.

For severe infections, double the dosage. When larger doses are indicated, consider parenteral erythromycin therapy. In beta-hemolytic streptococcus infections, maintain treatment for ten days to prevent rheumatic fever or glomerulonephritis.

In syphilis, a total of 20 to 30 Gm. is administered in divided doses for ten to fifteen days. Close follow-up is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examination of spinal fluid is recommended during follow-up.

In gonorrhea, the dosage is 500 mg. four times a day for four days. Patients with a suspected lesion of syphilis should have a dark-field examination before receiving antibiotics and monthly serologic tests for three months. For detailed information, consult the package literature.

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Tablets Ilosone Chewable, N.F., 125 mg.*

*Base equivalent. [080967]

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69, 1964. 2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 1962. 3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 1960.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

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GUEST EDITORIAL

Mortality and Ethics in Third-Party Medicine

The pendulum of mass public opinion swings back from its wild excursion of "pie in the sky" welfare attitude in the cool light of a realistic appraisal of who pays for the pie. The beautiful myth that the government can and should do all things and solve all problems by disbursements from its bounteous largesse is shattered by the cruel realization that the government is the public and the one who pays is not always someone else. The recent change in our State administration reflects more than anything else the public awareness that financial irresponsibility can only be courted as long as a drowsy public will accept unrealistic dreams.

It is inherently a goal of our Judeo-Christian culture and enlightened atheism that we share our bread with less fortunate brethren. Whether our brother's misfortune is a result of fate or his own indiscretion is a broadening and increasingly hazy line. The fact is we are *our* brother's keeper whether we desire the role or not in today's shrinking world. The heritage of medicine testifies to the physician's traditional concern for the health of all patients, including those who cannot afford private care. The staffing and organization of county hospitals and clinics has always been developed and usually instigated by doctors who were able to convince governing officials of the specific needs.

The present dilemma facing government and medicine is the insertion of the idea that good health is a right and not a privilege. We are confronted with the anachronistic theories that all people must receive the same medical attention whether they desire it or not, whether they are willing to make the personal effort or sacrifices necessary, and whether they or a third party assume financial responsibility.

If a dyspneic emphysema patient cannot be convinced to stop smoking, or an alcoholic or Laennec's cirrhosis patient to stop imbibing alcohol, or a severely obese diabetic patient to reduce caloric intake, the medical problem is obviously compounded regardless of the expenditure of private or public money. Furthermore, government and other large businesses have learned that specifications must be listed in awarding contracts to accomplish specific engineering jobs. Quality is nearly impossible to write into a medical contract as so much depends on the variables of time, attitude, personality, knowledge and concern of *both* the patient and the physician in regard to any particular health problem. Because all doctors are taught to revere quality and most patients appreciate quality, the "usual and customary" fee has proved successful as a working tool for third-party payment of fees. This, ideally, is the fee at which a given doctor can pay his particular overhead in his particular discipline of practice and continue to deliver quality care to each of his patients and still maintain a professional profit from his work sufficient to stay in business. Practically, this is now defined as the usual fee for a physician's specific service as related to the customary charge.

The decision for that specific service by other physicians in that particular area as to whether free medical care can be given any specific patient has been taken from the doctor's hands to a large extent by the complicating factors of the evolution of medical practice brought on by the revolution of medical technology. In this development the physician's fee assumes a decreasing percentage of the total medical cost. No longer can

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Reprinted from the Los Angeles County Medical Society Bulletin, Sept., 1967.



GUEST EDITORIAL

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one doctor see one patient and decide to give him free service with a handful of pills from the little black bag. Now a doctor must consider his own office staff and overhead, he must consider the pharmacist and his overhead, and the hospital with its massive overhead of personnel and equipment expenses; he must also consider the value and time of skilled technicians and medical consultants to whom he refers patients.

Obviously, this depersonalization of multiple services has required the advent of social workers to assess the need and degree of charity required for different cases. One may not need charity for several office visits and lab and X-ray studies for a pneumonia or pyelonephritis, but may require much assistance for a coronary thrombosis with hospitalization. Since there can be no consideration of turning back the progress of medicine, there must be an increasing need for discriminating social workers and social studies. Doctors are once again being asked to become social workers, only this time to become part of the team instead of the sole arbiter of whether one patient needs one doctor's charity. In this team effort the doctor must understand his role and his position of leadership in the welfare program. Since some social workers become obsessed with the zeal to obtain as many benefits for each of their charges as possible, it frequently becomes the physician's responsibility to ascertain which benefits are medically necessary or even logical at times. Doctors are involved deeply in social work. Various medical review systems have been instituted by insurance companies and government agencies and, most effectively, by organized medicine itself. An estimated 35,000 hours have been donated by physicians in Los Angeles County over the past year on medical review and utilization committees for the protection of the third-party who has assumed responsibility for payment of medical services.

Many of us deplored the onset of third-

party medicine just as we deplored the increasing utilization of social workers. We took care of patients in our own way and upon our own determination of charitable needs. Now we are asked to give the same degree of honesty and integrity and responsibility to the third party that we have traditionally reserved for our own patients. Some of us have had patients and families under our care for 20 or 30 years and have developed bonds of respect and admiration for these people in helping them through various medical problems and crises. We must not let our affection for and interest in behalf of these patients affect our judgment when authorizing requests for medications, appliances, or services. Nor can we bend to the request of a demanding patient in fear of losing his family and friends as patients when his request does not meet the responsible ethic of the situation.

Specifically, do we authorize or perform any service that the patient would not pay for himself if he were paying the bill and worked as hard as the average taxpayer for his money? As examples:

(1) Do we sign a form requesting extra money for a patient on a special diet for weight reduction (which should cost less)?

(2) Do we authorize housekeeping, cooking, or gardening services for a welfare patient just because the patient and his social worker have decided that these are possible with our sacred signature?

(3) Do we order a $1500 motorized bed for a patient because Medicare will pay 80%?

(4) Do we prescribe medications for a patient who gives or sells them to others?

(5) Do we order special nurses just because Medicare will cover?

(6) Do we hospitalize patients for our convenience or the convenience of relatives just because it's "free"?

(7) Do we sign a form because a lady pa-

(Continued on Next Page)

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that clouds vision

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PHENOBARBITAL 16 mg.
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GUEST EDITORIAL

(Continued from Page 519)

tient needed only our signature to have air conditioning installed in her house?

We are all involved in varying degrees in the welfare program. As intelligent and educated community leaders we must assume a dual responsibility to patients and taxpayers alike. We cannot as looters rob one to benefit the other.

Medibriefs . . .

Malformations in infants born to mothers infected with German measles (rubella) during the gestation period have been reported to be as high as 90 per cent, although the incidence is probably somewhat lower. The problem, however, is serious enough to prompt some physicians to advocate therapeutic abortion if German measles are diagnosed during the first two months of pregnancy. Now that an effective vaccine against rubella infection has been developed, Dr. Wallace E. Herrell suggests that vaccination against rubella be made a compulsory requirement for obtaining a marriage license. With this protection, many congenital malformations probably could be prevented.—*Clinical Med.*, February, pp. 15-17.

* * *

Home canning and preserving continues to be hazardous. In 1963 there were 46 cases of botulism reported in the United States. Botulism, a type of food poisoning, is caused by a toxin produced by growth of the spore-forming *Clostridium botulinum* in improperly canned or preserved foods. Dr. M. Glenn Koenig and associates of Nashville, Tenn., reported four members of one family who were hospitalized after eating unheated home-canned "pickled" green beans. The same family previously had eaten one jar of the beans without ill effects, but the contents of the first jar had been cooked before serving. Hospitalization lasted for 6 to 18 days, and recovery was not complete for more than two months.—*Am. J. Med.*, February, pp. 208-219.

AMA Clinical Meeting Nov. 26-29 at Houston

A scientific program especially designed for the physician in practice again will be featured at the AMA's Clinical Convention, to be held in Houston, November 26-29.

The four-day meeting will include scientific sessions on 18 major topics, four postgraduate courses, breakfast roundtable conferences, closed-circuit television and medical motion picture programs, and more than 150 scientific exhibits.

Of special interest are the postgraduate courses, expanded to four topics: Fluid and Electrolyte Balance, Oncology, Cardiovascular Disease, and Obstetrics and Gynecology. Each course will consist of three half-day sessions featuring outstanding teachers.

Scientific and industrial exhibits and all scientific meetings will be in Houston's new Astro Hall, a part of the Astrodome complex.

The AMA's policy-making House of Delegates will meet at the Shamrock-Hilton Hotel.

Topics at the general scientific sessions include: aerospace medicine, antibiotics, arthritis, cancer, cardiovascular medicine, cardiovascular surgery, dermatology, endocrinology, gastroenterology, general surgery, genitourinary treatment, geriatrics, obstetrics and gynecology, ophthalmology, otolaryngology, pediatrics, and psychiatry. There also will be a session on "new cares" featuring a discussion of legal and social problems now faced by the physician.

An outstanding program of closed-circuit color television and more than 25 medical motion pictures will be presented. Live, color television broadcasts of surgery and discussions from Houston's Hermann Hospital will be seen on a large screen in Astro Hall. Medical motion pictures will include three or four premier showings, plus several films that were well received at the AMA annual convention last June.

Nuclear Medicine . . . The Decades After Alamagordo

About 20 years ago, a scientist working at the then super-secret Los Alamos, N. M., Manhattan Project laboratory dropped a hint to a non-scientist friend in Santa Fe.

"Tonight," the scientist said, "go to the top of Sandia Mountain and keep looking south. Before the night is over you'll know what we've been doing down here."

The friend took the tip, and in the early morning hours of July 16, 1945, he saw the sun rise in the south. The Atomic Age had arrived in a ball of flame on the floor of the New Mexico desert.

In the decades since, nuclear science has helped achieve historic advances in all sciences, including biology and medicine.

For example, scientists who learned that deoxyribonucleic acid (DNA) is the storehouse of genetic information probably would have been stymied very early in their work if radioisotope "tracer" chemicals had not been available.

At least one Los Alamos scientist has predicted that the biological sciences, with the help of nuclear technology, will produce advances in the next 20 years that will dwarf the atomic bomb. In fact, he believes that advances in biology in the next 10 years may equal or surpass those made in physics in the 1935-45 decade.

Nuclear medicine today has a span reaching from clinical radiology to molecular biology. And most of its growth has taken place in less than a quarter century—since the first sustained nuclear chain reaction was achieved in a secret nuclear pile under the spectator stands at the University of Chicago's Stagg Field.

The very beginning dates back just 70 years. The German physicist Wilhelm Roentgen discovered x-rays in 1895. Natural radioactivity was discovered in uranium by a French physicist Henri Becquerel, in 1896. Within a few years both x-rays and naturally radioactive elements, especially radium, were being used in medicine.

At first radiation was used without an understanding of its origins. Not until the 1930s did atomic theory and experimental data permit scientists to form a concept of the atom as a nucleus of protons and neutrons surrounded by shells of orbiting electrons. And once scientists began to understand the atom, they began to suspect they could split it.

With cyclotrons and later other particle accelerators, physicists bombarded atoms with other atoms or atomic particles—protons, neutrons, and electrons—hoping to learn more about the atomic nucleus.

In the process they discovered that sometimes certain species of atoms can "capture" a neutron. By capturing a neutron an atom can become a heavier isotope of the same species. Other isotopes can be produced by interaction of certain atoms with high-energy protons, deuterons, and alpha particles. Quite often, however, these man-made isotopes are unstable and decay to a stable atom of the same or another element by emitting energy in the form of radiation. In other words, they are radioactive—"radioisotopes."

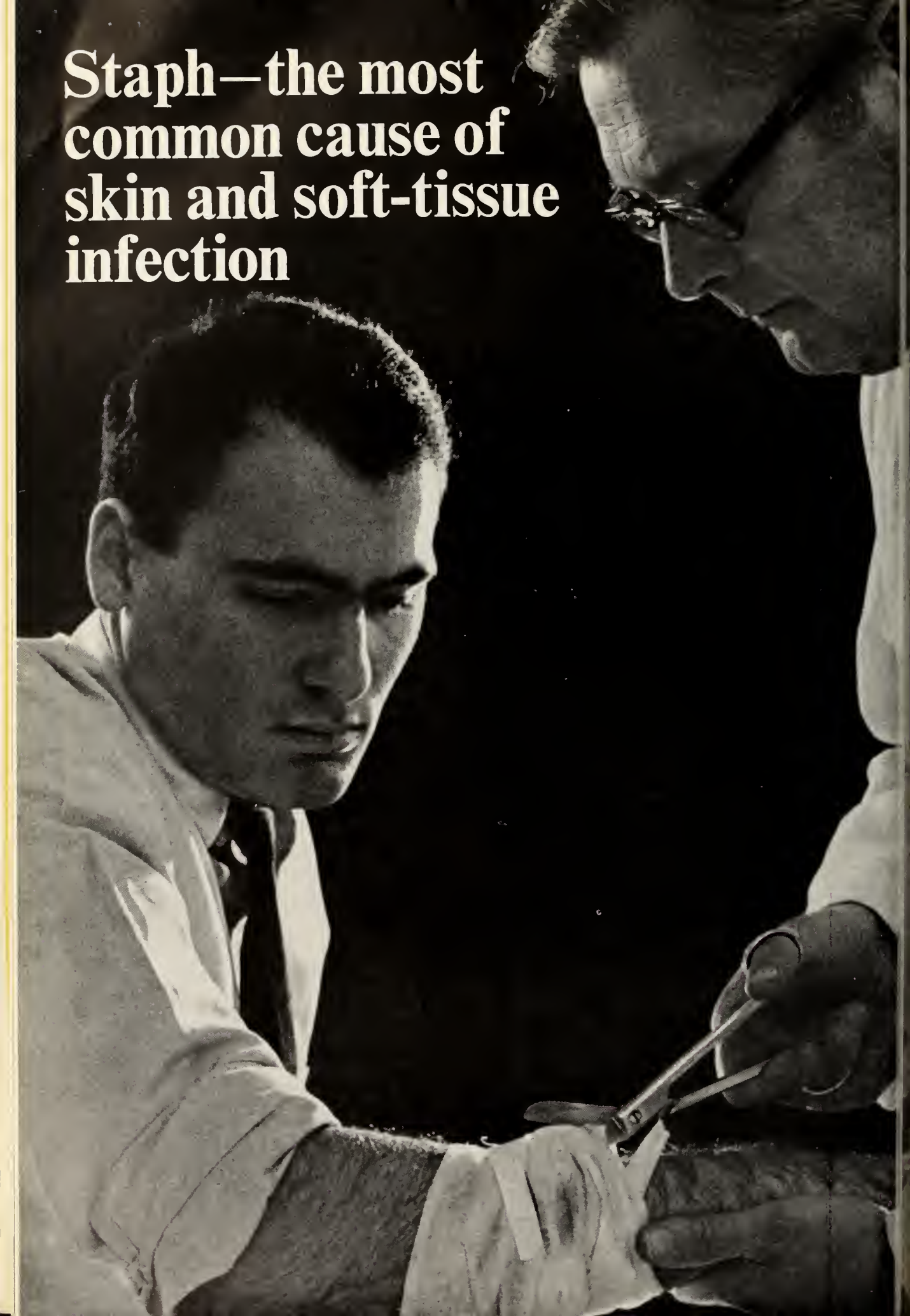
Radioisotopes are chemically identical to stable isotopes of their same species. In the chemistry laboratory, for instance, radioactive phosphorus is indistinguishable from nonradioactive phosphorus unless the chemist brings a radiation detector into play.

Living organisms, including the human body, are equally unable to differentiate radioactive from nonradioactive isotopes. Radioisotopes introduced into the body be-

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A Science Feature Article prepared by the Communications Division, American Medical Association.

Staph—the most common cause of skin and soft-tissue infection



reliably controlled with specific therapy



A suitable dosage form for every staph situation

Staph—the most common cause of skin and soft-tissue infection—also is responsible for many more serious infections, such as pneumonia, osteomyelitis, and septicemia. Often, a seemingly minor skin infection is the source of metastatic spread to deeper structures. When findings on culture incriminate staph as the cause, Prostaphlin (sodium oxacillin) will provide specific effective therapy.

Bactericidal effectiveness. Hardly a staph organism can resist the bactericidal action of Prostaphlin (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically proven. There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo*, therapy with oxacillin can be extended when necessary.

Outstanding safety record. Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Solution and Injectable. Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—capsules, an oral solution for pediatric use, and multi-dose vials for injection, I.M. or I.V.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY 8:12.16**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

BRISTOL

BRISTOL LABORATORIES/Division of Bristol-Myers Co., Syracuse, N.Y.

Whenever you suspect staph

PROSTAPHLIN®

SODIUM OXACILLIN

NUCLEAR MEDICINE

(Continued from Page 521)

have chemically the same as their non-radioactive cousins.

As early as 1923, scientists had recognized the potential of natural radioisotopes in biological research. By the time artificially created radioisotopes arrived, scientists knew they had a powerful tool for investigation.

When introduced into the body, an energetic radioisotope is detectable outside the body. Thus, the radioactivity serves as a beacon that can be followed as the radioisotope moves through the metabolic pathways. A doctor reading such signals may be able to determine whether the body is handling this particular chemical in a normal or abnormal fashion. Indeed, development of isotopically-tagged chemicals has permitted physicians to investigate many bodily functions that could not otherwise be studied.

The therapeutic possibilities of the radioisotope haven't been overlooked, either. By the late 1930s medical investigators knew that specific elements or compounds required by the human body could be produced in radioactive forms and introduced into patients. If the compound is tissue- or organ-specific, as iodine is for thyroid tissue, physicians theorized it should carry ionizing radiation directly to the spot to be irradiated. Their theory was correct, but so far the therapeutic uses of radioisotopes are far outnumbered by the diagnostic uses.

Radioisotopes were actually used in patients in the late 1930s and early 1940s. But cyclotron isotopes were rare and expensive. Large-scale use of isotopes had to await their large-scale production. Since large-scale isotope production requires the large supply of neutrons that is found only in nuclear reactors, medicine had to wait for its radioisotopes until 1946 when reactors were released from full-time work on the atomic bomb.

Radioactive isotopes are used experimentally in a number of ways. Some of these are:

(1) Administration of radioisotopes loosely combined with complex organic compounds. Zinc-65 combined with insulin to determine the time and place of insulin's action.

(2) Administration of radioisotopes in simple chemical form to plants or animals which use those particular chemicals in synthesizing more complex compounds. Administration of carbon-14-labeled carbon dioxide to plants, with the aim of extracting carbon-14-labeled compounds.

(3) Neutron irradiation of experimental animals to cause certain minerals within the body to become radioactive and thereby permit scientists to study their function. Neutron irradiation of rats and rabbits to study the paths and functions of trace minerals in mammals.

Experimental nuclear medicine is not tied only to the radioisotope, however.

The thirty-fifth generation of an irradiated mouse colony is enjoying life in a laboratory building at Los Alamos. In return for free room and board in comfortable cages the mice furnish information which is helping Los Alamos scientists determine the long-term effects of radiation upon a mammalian population. The possibility of genetic damage to humanity from fallout and other radiation sources, a major concern of the Atomic Age, prompted the investigation.

"For the seven years we've maintained the colony, we have irradiated males with 200 roentgens of cobalt-60 gamma radiation before they are allowed to breed," explains Dr. Wright Langham, group leader of the Los Alamos Scientific Laboratory Biological and Medical Research Group. "We're looking for any genetic weakening of the mouse strain from a constant, high level of irradiation. The results to date fail to show any weakening effect on this mouse population.

"The most outstanding effect we have seen

(Continued on Page 531)

A Building Block approach to treating hypertension

With these three therapeutic building blocks you can create a once-a-day regimen to fit almost any degree of hypertension. See the following pages for details . . .



Consider starting your hypertensives on this basic thiazide

A single daily dose of Enduron provides sodium excretion around the clock

Enduron is a true 24-hour single-dose thiazide. Its sodium excretion is not squeezed into an abrupt peak during the first several hours. It is well-sustained in a plateau-like effect—with little reduction for the first 12 hours, and decline thereafter only gradual.

Potassium loss, by contrast, is low. It reaches an early minor peak, then subsides rapidly. Moreover, since dosage is but once a day, there is but one daily peak of potassium loss. As with all thiazides, however, dietary potassium supplementation should also be considered, especially in long or intensive therapy.

Use Enduron as an ideal starting therapy in mild hypertension. Use it too, as a basic therapeutic building block with which other agents can be joined, for managing your more resistant hypertensives.

Once a day, every day

ENDURON®
METHYCLOTHIAZIDE



DAILY DOSAGE RANGE	Minimum	Usual	Intermediate	Maximum
	2.5 mg. tablet	5 mg. tablet	7.5 mg.	10 mg.

See Brief Summary on final page of advertisement.

To build added response, shift to Enduronyl

ABBOTT

The deserpidine component adds enhanced antihypertensive activity

The rauwolfia component of Enduronyl is deserpidine (Harmonyl®), a purified crystalline alkaloid supplied only by Abbott. It augments Enduron with its own antihypertensive and tranquilizing action.

Thus the combined clinical effect of these two therapeutic building blocks in Enduronyl is greater than can ordinarily be achieved with either alone.

To add flexibility, Enduronyl comes in two strengths: regular and Forte. Both provide 5 mg. of Enduron. The variation is where most helpful: in the deserpidine. The tablets are scored, and give a surprisingly wide and economical choice of once-a-day doses (see below).

Choose Enduronyl for your patients in the broad range of mild to moderate hypertension. Patient acceptance is excellent!



Once a day, every day

ENDURONYL®

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.25 MG.

ENDURONYL FORTE

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.5 MG.

	Minimum	Usual	Intermediate	Maximum
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.125 mg. deserpidine	5 mg. methyclothiazide 0.25 mg. deserpidine	7.5 mg. methyclothiazide 0.375 mg. deserpidine	10 mg. methyclothiazide 0.5 mg. deserpidine
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.25 mg. deserpidine	5 mg. methyclothiazide 0.5 mg. deserpidine	7.5 mg. methyclothiazide 0.75 mg. deserpidine	10 mg. methyclothiazide 1 mg. deserpidine

See Brief Summary on final page of advertisement.

707075-R

Eutonyl affords a different kind of basic therapy for moderate to severe cases

ABBOTT

Effect tied to reduced peripheral vascular resistance; no central depressant action

Eutonyl is a unique nonhydrazine agent. It is reported to act by reducing peripheral vascular resistance.[1,2]

In clinical trials, significant reductions in mean blood pressure were seen in 84% of patients studied—all were moderate to severe cases. Eutonyl lowers diastolic in proportion to systolic, and in about half of the cases studied, reductions in the sitting and recumbent positions were nearly as great as in the standing position.

Most important: There is no central depressant action. In fact, some patients reported an *increased* sense of well being.

Here, then, is a highly effective *basic treatment* for moderate to severe cases—and one that will not hamper your patient with lethargy or drowsiness while on treatment.

Once a day, every day

EUTONYL®
PARGYLINE HYDROCHLORIDE



DAILY DOSAGE RANGE	Minimum	Usual starting	Intermediate	Maximum
	10 mg. tablet	25 mg. tablet	50 mg. tablet or as needed	200 mg.

1. Brest, A. N., et al., Cardiac and Renal Hemodynamic Response to Pargyline, Ann. N. Y. Acad. Sci., 107-1016, 1963.
2. Winsor, T., Pargyline Hydrochloride, Hypertension, Urinary Tryptamine, and Vascular Reflexes, Geriatrics, 19:598, Aug., 1964.

See Brief Summary on final page of advertisement.

Eutron adds thiazide for enhanced therapy with milder side effects

ABBOTT

Only a 7/4 mm. span between standing and recumbent pressures in clinical trials—reduced chance of orthostatic hypotension

The combining of Eutonyl and Enduron in Eutron permits a significantly greater antihypertensive effect than with either agent used alone. This in turn may allow therapeutic success with lesser dosage—and correspondingly milder side effects.

A significant finding in clinical trials was the drug's action in lowering blood pressure to *nearly equal levels in all body positions*. Total average spread between standing and recumbent readings (after treatment) was only 7/4 mm. Hg.

Thus, in your moderate to severe cases, Eutron affords a usually smooth course of therapy, often with reduced likelihood of orthostatic effects. (The usual precautions against rising suddenly, of course, will always apply.) And, because of the thiazide component, Eutron may be used in the presence of congestive heart failure.





Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 MG.
WITH METHYCLOTHIAZIDE 5 MG.

DAILY DOSAGE RANGE	Minimum	Usual starting	Intermediate	Maximum
	12.5 mg. pargyline hydrochloride and 2.5 mg. methyclothiazide	25 mg. pargyline hydrochloride and 5 mg. methyclothiazide	37.5 mg. pargyline hydrochloride and 7.5 mg. methyclothiazide	50 mg. pargyline hydrochloride and 10 mg. methyclothiazide

See Brief Summary on final page of advertisement.

TM—Trademark

707075-R

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains
Methyclothiazide 5 mg. with
Deserpidine 0.25 mg. or 0.5 mg.

Indications: Enduron is used to control edema and mild to moderate hypertension; also used with other drugs for hypertension. Enduronyl is used in mild to moderately severe hypertension; when used with Enduronyl, more potent agents can be given at reduced dosage to minimize undesirable side effects.

Contraindications: Neither Enduron nor Enduronyl should be used in severe renal disease (except nephrosis) or shutdown; in severe hepatic disease or impending hepatic coma; in patients sensitive to thiazides. Hepatic coma has been reported as a result of hypokalemia in patients receiving thiazides.

Enduronyl is contraindicated in patients with severe mental depression and suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity reactions in patients with a history of allergy or asthma. If added potassium intake is indicated, dietary supplementation is recommended. Enteric-coated potassium tablets should be reserved for cautious use only when adequate dietary supplementation is not practical because those tablets may induce serious or fatal small bowel lesions consisting of stenosis with or without ulceration. These small bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs.

Precautions: Use thiazides with caution in severe renal dysfunction, impaired hepatic function, or progressive liver disease. In surgical patients, thiazides may reduce the response to vasopressors and increase the response to tubocurarine. Use thiazides with caution in pregnancy (bone marrow depression, thrombocytopenia, or altered carbohydrate metabolism have been reported in certain newborn infants). Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. Antihypertensive response may be enhanced following sympathectomy.

Use Enduronyl with caution in patients with a history of peptic ulcer, as rauwolfias may increase gastric secretion. Discontinue at the first sign of mental depression. Rauwolfia alkaloids may increase hypotensive effects of surgery or anesthesia, and should be discontinued two weeks prior. They also lower the convulsive threshold and shorten seizure latency. In epilepsy, dosage adjustment of anticonvulsant medication may be necessary. Alcohol, barbiturates, or narcotics may potentiate action of deserpidine.

Adverse Reactions: During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). All patients should be observed for signs of hyponatremia ("low-salt" syndrome). Reported thiazide reactions include: anorexia, nausea, vomiting, diarrhea, headache, skin rash, dizziness, paresthesia, weakness, photosensitivity, jaundice, and pancreatitis.

Reported rauwolfia reactions include: nasal stuffiness, nausea, weight gain, diarrhea, aggravation of peptic ulcer, epistaxis, skin eruption, and reduction of libido and potency. Excessive drowsiness, fatigue, weakness, and nightmares may signal early signs of mental depression.

EUTONYL® | EUTRON™

PARGYLINE HYDROCHLORIDE

Each tablet contains
Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amenable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-Trademark.

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅕ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

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ABBOTT

(Continued from Page 524)

is that the irradiated population has fewer mice per litter than a non-irradiated control population. But the number of litters per female has increased in the irradiated mice, so we get the same number of mice from the irradiated line as we get from the control line.

"We have not been able to produce the genetic death of a mammalian population. When radiation stress at this level is brought to bear on a population, it apparently shifts its equilibrium. We think now that irradiation cannot cause the genetic death of a mammalian population, unless the level of radiation is high enough to sterilize."

Meanwhile, a number of tamarins—small, teddy-bear-cute primates housed at the Oak Ridge Institute of Nuclear Studies, are being used in transplantation studies by Dr. Nazareth Gengozian and associates. Dr. Gengozian says that tamarins, natives of the equatorial forests of Colombia, Ecuador, Peru and Bolivia, are probably the cuddliest-looking of all laboratory animals. But their appearance does not deceive animal handlers who have seen tamarins bite through an armored glove.

It is not the cuteness or vicious temper of the tamarin that biologists find intriguing, however. They are interested in the fact that tamarin females almost always bear twins, and the twins apparently are always fraternal rather than identical. Even more uniquely, an exchange of blood-forming tissue takes place between the twins while they are still in the mother's uterus. The "foreign" tissue received by each twin is not destroyed by their respective immunological systems, so each twin is born a chimera, with blood-forming tissues of two genetic types. The chimera of biology, an individual with two types of genetic tissue, is named for the chimera of mythology—an animal made up of incongruous parts.

The discovery of natural chimerism is a windfall for Dr. Gengozian, who has worked for several years on the problem of transplanting bone marrow and other tissues in human beings. The chief problem of transplantation is overcoming the immune barrier —getting the transplanted tissue to "stick" in the face of the host body's anti-foreign tissue immune reaction. Dr. Gengozian can now ask: If chimerism can exist in nature, can we induce artificial chimerism in animals and human beings? If artificial chimerism could be induced—a bit of pure speculation, Dr. Gengozian stresses—physicians might find it possible to:

(1) Replace bone marrow in patients whose own marrow has been destroyed by irradiation—either accidentally or therapeutically for leukemia or other blood diseases.

(2) Better understand the nature of immune rejection.

So far, Dr. Gengozian and his associates can only detect male-female tamarin chimerism with accuracy. One of their next projects is to learn how to establish male-male chimerism. Also planned are experiments designed to answer such basic questions as: Can tamarin tolerance for foreign red cells be broken down with ionizing radiation? Are skin grafts effective in indicating tolerance in tamarin chimeras? How stable is the chimerism with age? What are the possible degrees of chimerism? With regard to the latter question, the Oak Ridge scientists have already found one tamarin male whose body was estimated to contain 90 per cent female white blood cells.

Aside from its use as an investigative tool, nuclear scientists are also studying radiation in terms of its direct effects on life.

Of all the words invented to explain Atomic Age phenomena, probably none has been used and misused more than "fallout" —a term coined in 1945 to describe the radioactive debris that settles to earth after nuclear explosions.

Before the U. S.-Soviet treaty banning

(Continued on Page 534)



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NUCLEAR MEDICINE

(Continued from Page 531)

nuclear tests in the atmosphere, arguments concerning fallout raged in newspapers almost daily. The official U. S. government position, as expressed by the AEC, was that fallout from nuclear tests could be dangerous but that consistently dangerous levels of fallout from nuclear bomb testing in the atmosphere had not yet been reached. Some nongovernmental authorities challenged this position in varying degrees, the most extreme saying that every nuclear test produced radioactive materials which weakened the human race through disease and genetic damage. Thus, one task of nuclear medicine has been to attempt to determine how much fallout is a dangerous amount, and to set safety standards for the public.

Of the approximately 200 different radioactive species produced in fission processes, only a few are known to be a possible hazard to man. The hazard represented by a radionuclide depends upon: (1) the amount produced; (2) its radioactive half-life; (3) the efficiency with which it is transferred through the food chain to human diet—that is, whether it appears in possibly harmful amounts on plants consumed directly by man, or on plants consumed by food animals; and, (4) its metabolism in the body of food animals and in the body of man—that is, whether it appears in possibly harmful amounts in meat and milk consumed by man, and whether it concentrates in some area of the human body where it can potentially cause harm.

Some of fallout radionuclides with the most potential for hazard:

Iodine-131—eight-day half-life; concentrates in milk of cattle that eat contaminated feed; concentrates in thyroid of man.

Strontium-90 and Strontium-89—half-lives of 28 years and 51 days respectively; present in cow's milk and leafy plant foods; concentrates in bone of man and animals, although strontium concentration in bone is minimized if enough calcium is available in the body.

Cesium-137—30-year half-life; appears in milk, meat, flour, cereals, vegetables and fruits; behaves in biological systems much the same as potassium but is removed from the body fairly rapidly.

Carbon-14—5,800-year half-life; appears in most biological systems; since carbon is basic to all organic forms of life on earth, it is taken up by all; the amount of carbon-14 produced by nuclear explosions is small, but remains active for many centuries.

Others—cerium-144, zinc-65, iron-55, iron-59, and cobalt-60 are all concentrated by organisms in the human food chain, but their hazard is not considered great.

Scientists are still gathering data to determine the effects of fallout ingestion on human beings. The final results may not be in for many more years, but the AEC feels that no significant ill effects will be revealed in the population as a whole.

Industrial nuclear hygiene is only as old as the Atomic Age. But, 2,600 health physicists and specialists guard the well-being of the thousands of workers in the atomic and nuclear industries, according to Dr. Harry Schulte, group leader of the Los Alamos industrial hygiene group. By way of contrast—and pointing up the lengths to which nuclear safety has been taken—about 2,000 industrial health specialists work in all other American industries combined, helping to safeguard hundreds of thousands of workers. It is a proud point with nuclear health physicists that there has never been a case of plutonium or uranium poisoning among plant or laboratory personnel.

Direct exposure to radiation in a plant or lab is almost always a consequence of carelessness in handling nuclear materials, or of accidents involving nuclear materials. Serious or fatal exposure usually results from a "criticality incident," when fissile material in a liquid solution or a nuclear reactor is accidentally permitted to reach a high level of reactivity. More than 30 such incidents

have occurred since 1943, and a few have been fatal. No nuclear explosion accident has ever occurred.

Destruction of a reactor in a criticality incident always results from the heat generated in the "runaway" and not by any nuclear explosion. A detailed study of criticality incidents by Dr. W. R. Stratton of Los Alamos has shown that even the most violent reactor incidents released very little radioactive material into the atmosphere. In every case, dangerous materials were contained inside the building housing the reactor.

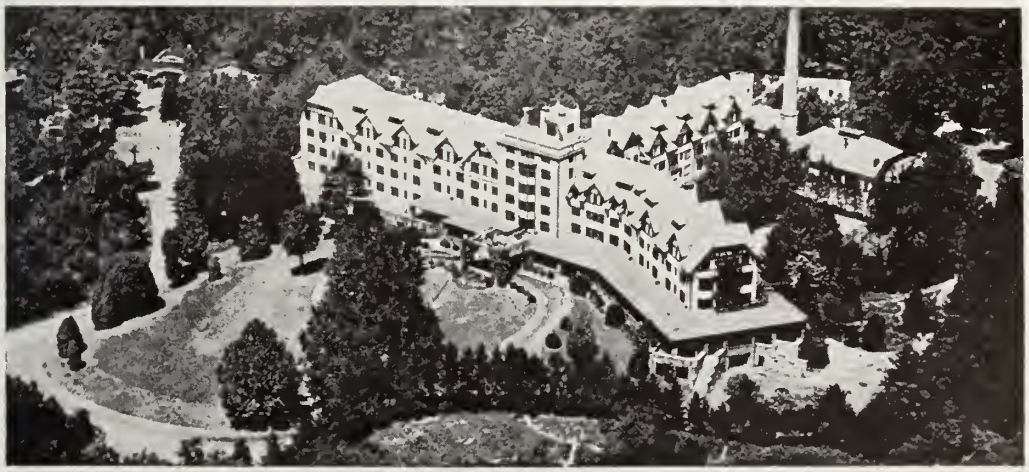
A 1961 criticality incident killed three men at an AEC reactor testing area in Idaho, but did not contaminate the area outside the reactor building, even though the reactor building was not air tight. The device here was a boiling-water power reactor designated SL-1. After a shutdown for routine maintenance the reactor was being prepared for restart by a three-man crew when the accident, still unexplained, happened. One of the neutron-absorbing control rods was apparently pulled out manually by one of the crew. The immediate power spike that followed heated water to steam almost instantaneously; a steam explosion wrecked the reactor, killing two men and injuring the third so severely that he died two hours later. Investigators found a high radiation level in the shambles inside the reactor building but almost none outside.

"The power reactor is the answer to the environmental health specialist's prayer," says Dr. Schulte. "It just sits there quietly producing power and doing almost nothing to pollute the countryside. No smoke, no ash, no smell. In fact, more radioactive material gets into the atmosphere in the fly ash from a coal-burning power station than you'll ever see escaping from a reactor facility."

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h caution in pregnant patients, since g may cross the placental barrier and e reactions which may occur in the hrombocytopenia, hyperbilirubinemia, carbohydrate metabolism, etc.) are al problems in the newborn.

ions: Antihypertensive therapy with on should always be initiated cau- in postsympathectomy patients and nts receiving ganglionic blocking or other potent antihypertensive drugs, re. Reduce dosage of concomitant ertensive agents by at least one-half. rates, narcotics or alcohol may po- hypotension. Because of the possi- progression of renal damage, peri- termination of the BUN is indicated. inue if the BUN rises or liver dysfunc- aggravated. Hepatic coma may be ated.

lyte imbalance, sodium and/or potas- pletion may occur. If potassium deple- ould occur during therapy, Hygroton be discontinued and potassium sup- ts given, provided the patient does e marked oliguria.

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e Reactions: Nausea, gastric irritation, g, anorexia, constipation and cramp- ziness, weakness, restlessness, hy- emia, hyperuricemia, headache, mus- nps, orthostatic hypotension, aplastic leukopenia, thrombocytopenia, ocytosis, impotence, dysuria, transient skin rashes, urticaria, purpura, nec- angiitis, acute gout, and pancreatitis pigastric pain or unexplained G.I. ms develop after prolonged adminis- Other reactions reported with this compounds include: jaundice, xan- paresthesia, and photosensitization.

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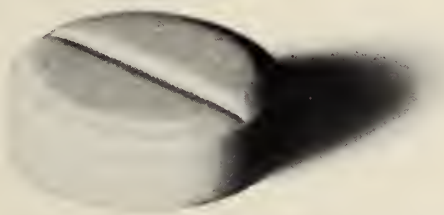
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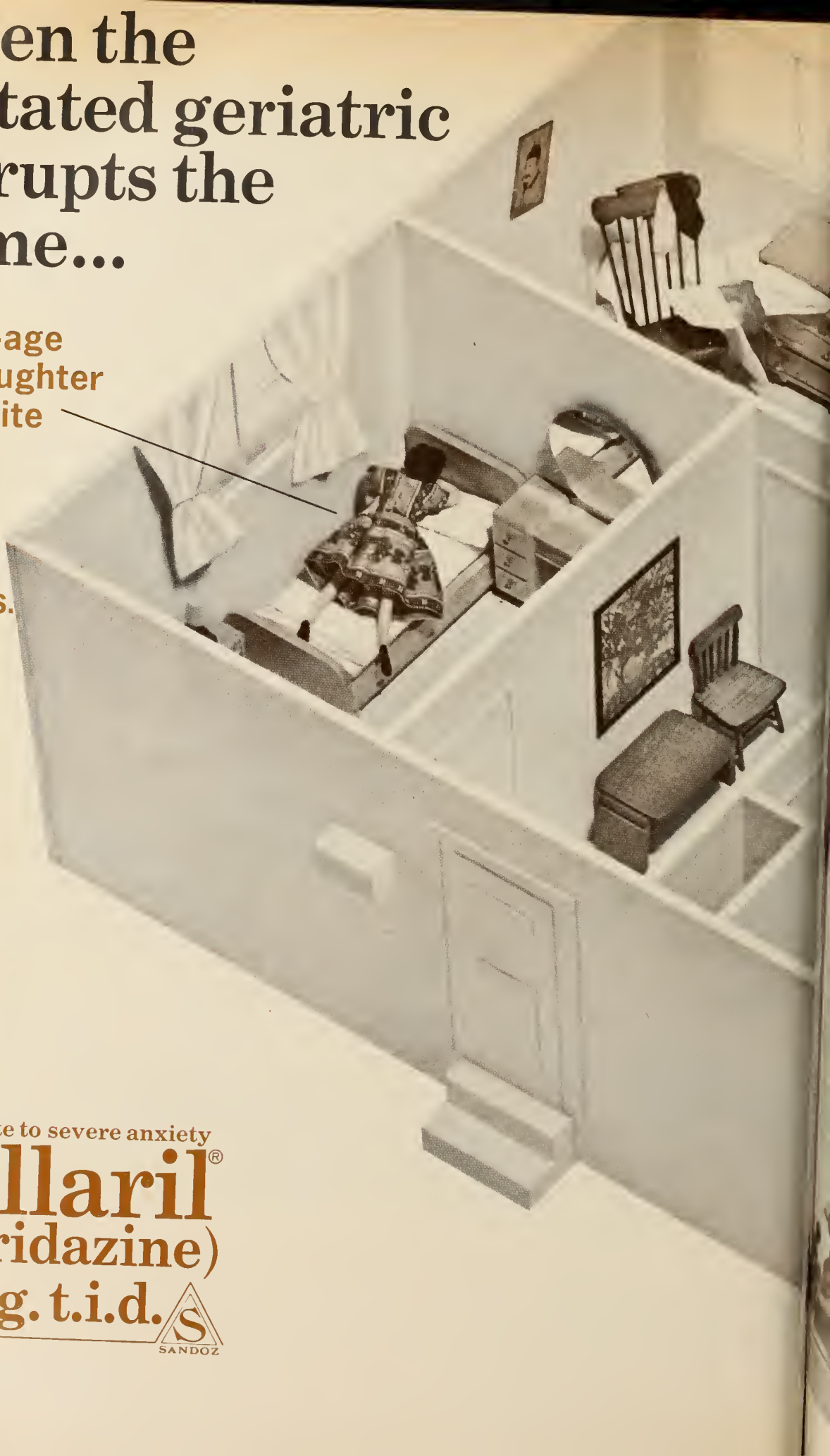
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HY-5406

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His teen-age granddaughter won't invite friends home because of his outbursts.



for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

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His daughter can't please him. There is "just no living with him."

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Anxiety that *seriously interferes* with the individual's performance at work, at home, or in the community may be regarded as *moderate to severe* in degree.

Mellaril often recommends itself to the treatment of moderate to severe anxiety because it

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Thus, when you consider the anxiety moderate to severe... consider Mellaril.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

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Mellaril®
(thioridazine)
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Each tablet contains:

Potassium Iodide	195 mg.
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Phenobarbital, Caution: May be habit forming...	21 mg.
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Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

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Blue Cross-Blue Shield Report

William E. Miller, Jr.

Executive Vice President, Blue Cross-Blue Shield, Inc.

This is a positive report of the actions and activities accomplished by **Blue Cross-Blue Shield** of Alabama since the implementation of the agreement between the Board of Censors of the Medical Association of the State of Alabama, and the corporation. The agreement, as you may recall, was the result of activities of the two ad hoc committees whose challenge it was to work out a satisfactory arrangement that would result in a better relationship between the Medical Association and the corporation.

To refresh our memory as to the points agreed to, let me review very quickly the basic contents of the agreement.

1. That there would be established within the board of directors of the corporation two executive committees, one dealing with Blue Shield matters, and one dealing with Blue Cross matters.

2. That the corporation would keep separate accounts and maintain separate financial records, these records separating the activities of Blue Cross and Blue Shield from a fiscal point of view.

3. That the rates for Blue Cross and the rates for Blue Shield would be self-supporting, and would be reviewed periodically and adjusted in case either one of the rate structures was other than self-supporting.

4. It was agreed that any contracts entered into between the corporation and the federal government, whereby the corporation would be acting in the role of either a carrier, an intermediary or an agent for any government health programs, the Blue Shield Executive Committee would retain the same degree of responsibility and authority in this area as it was granted in other areas of Blue Shield activities. These were the basic points of the agreement itself, and, of course, it is an extreme pleasure for me to report that:

1. The separate Executive Committees have been established and the Blue Shield Executive Committee has been functioning as such since approximately the first of the year and, to the best of my personal knowledge, this committee is functioning efficiently and is performing its duties in a professional manner.

2. Separate accounting has been established and separate financial reports are made available monthly to the two Executive Committees, as well as a combined re-

This report was given to the State Board of Censors at its September meeting following a one-year "Trial period" of operations approved at a called meeting of Counsellors and Delegates held in Montgomery on November 6, 1966.

port, so that a total fiscal picture is now available for that purpose. In addition, the accounting firm of Ernst & Ernst was employed to develop a formula for separating the operational expenses, and this has been accomplished, so that now, logically, through the mechanism of this formula, the costs of operation are properly allocated to Blue Cross and Blue Shield.

3. Since the current rates in effect are adequately supporting both Blue Cross and Blue Shield, there has been no reason to make any adjustment in this area. And, of course, in the instance of the federal government programs, your Blue Shield Executive Committee has been kept apprised of our activities under Title 18 and will be directly involved in any actions that might commence under Title 19. Also, in the instance of the comprehensive health program now being discussed for Lowndes County.

Thus you can see that the points outlined in the basic agreement, as far as I am concerned, have been adhered to, and that the corporation has very honestly and sincerely performed its role during the initial phase of this agreement.

In addition to the basic points contained in our agreement, I personally, if you will recall, made some observations in a presentation before the house of delegates. In this presentation, I made reference to a sincere effort to be made in upgrading fee schedules, and an acceleration in the phasing out of inadequate schedules that exist throughout the state. It is a pleasure for me to announce that, during this period of time, your Blue Shield plan has become involved in writing prevailing fee programs, as well as reasonable and customary programs, which, I am sure you know, pay to the physician his charge for the covered services performed by him. At the present time, there are some 100,000 Blue Shield subscribers in the State of Alabama covered under such programs. It was during that meeting of the house of delegates that I also made reference to **usual, reasonable and customary,** and **prevailing fee** programs. It is apparent to me that the trend in the marketplace is now demanding more of this type of coverage, and your local Blue Shield plan is ready, willing and able to deliver such methods of reimbursement for professional services covered through a contract that any company or industry in the state that might desire such a program.

During the same presentation, I also made reference to further government program involvement, and I had reference at that time to Title 19. I think all of you are aware of the degree to which we are currently working with all parties concerned in the Title 19 arena in the State of Alabama.

One of my major points was a reflection that there would be a sizeable increase in our professional relations activity. This too has become an accomplished fact. We have, for instance, a staff of five male representatives including the department manager, who are covering the state in conducting the affairs of a professional relations activity. These men have met with medical staffs of hospitals and have appeared before a number of county medical society groups. In addition, they have made themselves available to civic clubs for presentations, and, as I'm sure many of you know, have made numerous calls at individual physicians' offices. In addition, this department has developed and issued a manual of instructions for your office personnel and medical assistants. They have conducted some twelve workshops for medical assistants, and there are some twelve more scheduled for the remaining part of this year. Another reference I made during that meeting was a better line of communication between the corporation and the individual physicians. This has been accomplished through the development of a **"Newsline,"** which is a newsletter type of document that is sent to all physicians in the state, and deals with subjects that are, or at least we feel they are, important to the individual doctor. This is an activity that will continue to be improved upon, and increased as we get further into it.

I somewhere during that same Sunday morning in Montgomery made a hasty reference to the development of a new claim form, which we hoped would decrease the amount of paper work required of your office personnel. This claim form has been developed and is currently in use.

One other thing I promised during that "crystal ball gazing" was an improvement in our claims processing. Certainly, I think you will agree that the medicare checks are on a much more current basis than before, and we are earnestly working on our regular Blue Shield claims activity to bring it to a level of efficient and current operation.

My personal observation as to the past eight and one half months' activity would be one that would suggest a greatly improved Blue Shield operation, a far better rapport between the corporation and the physicians in the state, and a projection that a continued dedication to eliminating inadequate fee schedules will be a continuing effort on our part. And a Blue Shield Executive Committee that will continue to be responsible and maintain a dedication to these responsibilities, and, of course, above all a continued improvement in our total Blue Shield activities to a point where the physicians, the corporation and the subscribers will be reaping the rewards of a sound health program.

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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Published Under the Auspices of the Board of Censors

Volume 37 November, 1967 No. 5

The Problem Of Gastric Ulceration

Michael Winrib, M. D.*

Montgomery, Alabama

The patient with a gastric ulcer poses a problem to the physician who must choose initially between surgical or medical treatment. The quandary centers around the difficulty in excluding malignancy requiring surgery, on the one hand, and the prospect of potentially unnecessary surgery, on the other, with its attendant risks and problems.

The physician is exposed to the advocates of both the surgical and medical approach. The surgically attuned school argues that no one or combined diagnostic procedures can distinguish benign ulceration from ulcerating carcinoma. The medically oriented advocates plead for a trial of ulcer therapy, anticipating 50 per cent or more healing as judged by X-ray in three to four weeks. The difficulty with either standard approach is one of oversimplification of the problem.

Most physiologists and clinicians in the field of gastroenterology regard the gastric ulcer as different from the duodenal ulcer. Reasons for this include the differences in age and sex distribution, gastric acidity, postulated pathogenesis, and the spectre of occult malignancy.

General experience through the years has shown that most (above 90 per cent) benign-appearing gastric ulcers are benign. If one were to recommend resectional surgery in all



Dr. Michael Weinrib

cases of gastric ulceration because of the outside chance of malignancy, the majority of patients would be subjected needlessly to the morbidity (and mortality) of gastric resection. The post-operative complications of malnutrition, dumping syndrome, bilious vomiting, malabsorption and recurrent ulceration occur often enough to make one pause.

To aid in the diagnosis and management of the gastric ulcer, certain time-honored clinical guideposts are helpful in distinguish-

* Gastroenterologist

ing the benign from the malignant ulcer. However, even the following criteria may occasionally fall short, reflecting their diagnostic limitations.

X-RAY. For years the location of the gastric ulcer has been used as a clue in deciding its nature. Despite its benign appearance, the ulcer on the greater curvature was regarded as probably malignant. Although statistics vary, more recent studies have shown the incidence of carcinoma on both curvatures to be more nearly the same. Ulcers in the antrum are still regarded with more suspicion than those above the incisura, especially when they appear shallow or asymmetrical. An active duodenal ulcer usually indicates the benign nature of coexistent gastric ulceration.

X-ray interpretation itself has limitations. It is well-known that gastric carcinoma may have the radiographic appearance typical of benign ulceration. There are documented cases of a grossly "benign ulcer" found to contain a microscopic focus of carcinoma, suggesting the concept of "malignant degeneration" of a benign ulcer, now held by only a minority. Conversely, benign ulceration may be misread as malignant, as when it occurs in an apparent mass-lesion of edematous mucosa producing the "meniscus sign." Gastroscopy has repeatedly confirmed an edematous cuff of mucosa around benign gastric ulcers.

Once a course of medical treatment has been elected, repeat upper gastrointestinal tract X-rays are mandatory in three to four weeks to check for evidence of healing. Carcinomatous ulceration responds poorly or not at all to an antacid regimen. Through the years healing of less than 50 per cent of initial ulcer size has been regarded as an inadequate response to medical therapy and a need for surgery. When this occurs, a dilemma may arise since the measurement of ulcer size is only an estimation, the 50 per cent figure arbitrary, and the approach empirical. Many gastroenterologists have come to accept lesser degrees of healing in the elderly patient, who in general tends to mend more slowly than the young. Yet caution and judgement should be exercised because of the higher incidence of carcinoma in the older age group.

GASTRIC ANALYSIS. Gastric analysis has traditionally been important in the evaluation of the patient with a gastric ulcer, which usually arises in an environment of hypochlorhydria, in contrast to the hypersecretion associated with the duodenal ulcer. If achlorhydria is found on stimulation with histamine or Histalog (1.5 mg. per kilogram of body weight), it should be confirmed by a second challenge to exclude error due to inadequate sampling or contamination with bile.

Most clinicians agree that an ulcer in the presence of histamine-fast achlorhydria should be regarded as malignant till proven otherwise, since it defies the classical acid-pepsin concept of peptic ulcer formation. Yet rare instances of benign (perhaps not peptic!) ulceration associated with total anacidity have been reported and have aroused controversy[1, 2]. Not all patients with carcinoma of the stomach are achlorhydric. A recent study showed only 68 per cent had histamine-fast achlorhydria, with hypochlorhydria in another 12 per cent[3]. The crux of the matter may be the definition of "achlorhydria."

Recently the concept of "free acid" and "total acid" have come under serious question by investigators[4, 5] who have observed typical peptic ulceration in the absence of "free acid," defined by a hydrogen ion concentration with a pH of less than 3.5, as measured with Topffer's reagent. They conclude that significant peptic activity can exist at a pH higher than 3.5 and recommend a single titration to chemical neutrality (pH 7) with phenol red, replacing Topffer's and phenolphthaline. The latter has been used to measure "total acid" ("free" plus "combined acid") and has an end point at a pH of 8.2. The "combined acid" fraction reflects the intrinsic protein buffer system, which seems to have little clinical importance. New values have been established for normal, hypo-, and

TABLE 1

Mean Basal Acid Output (BAO) and Maximal Acid Output (MAO) In Men. (after Kirsner[4]).

	BAO*	MAO*
Normal	2.2-4.0	21.7-22.2
Gastric Ulcer	3.6	21.3
Duodenal Ulcer	3.6-7.9	34.2-37.5
Zollinger-Ellison Tumor	21-85	34-100

*Expressed as m.Eq./hr.

hyperacidity, using pH 7 as a reference point. (See Table 1.)

An integral part of this new concept of gastric analysis is an emphasis on acid expressed as *total milli-equivalents per unit of time* (*m.Eq./hr.*) rather than as m.Eq./liter (clinical degrees), a concentration, which will vary from minute to minute. With the tube positioned in the antrum four 15-minute specimens are collected for basal acid output, and after Histalog stimulation four, for maximal acid output.

In addition to acidity studies gastric juice may be submitted for cytologic examination and for lactic dehydrogenase (L.D.H.) determination. The value of exfoliative gastric cytology is well-established with a reported diagnostic accuracy in experienced hands of 86 to 93 per cent for gastric carcinoma[6, 7].

In 1962 Smyrniotis and Schiff et al.[8], reporting on L.D.H. activity in gastric juice and in serum, found a significantly higher level of L.D.H. in gastric juice in 26 patients with gastric carcinoma. In only two of these were the values as low as the upper limits of normal. (See Table 2.) Because L. D. H. activity is best measured at a pH of 7 to 7.5, acetazolamide (Diamox) should be used before collection to neutralize gastric acidity. A dose of 75 mg. per kilogram of body weight in 500 cc. of fluid is given intravenously over an hour's period with gastric aspiration every half hour for two hours until the optimum pH is reached.

TABLE 2

Mean L. D. H. Activity (after Smyrniotis and Schiff[8]).

	No. of Patients	Gastric Juice*	Serum*
Normal Stomach	27	155	301
Gastric Ulcer	22	226	270
Gastric Carcinoma	26	897	314
Pernicious Anemia	20	474	814

*Activity expressed in units/cc., measured spectrophotometrically by the method of Berger and Broida.

Despite early enthusiasm the tetracycline-fluorescence test on gastric sediment has failed to live up to its promise in the diagnosis of cancer[9,10].

GASTROSCOPY. Once a gastric ulcer has been found radiologically and the state of its acid environment determined, gastroscopic visualization of the crater affords the physician another, and probably the best, opportunity to judge the nature of the lesion, short of surgery.[11] Typically the benign ulcer crater appears creamy or slightly greenish in color with smooth, well-delimited edges. Large acute ulcers may show a surrounding mound of edematous mucosa. In contrast, the malignant ulcer is usually somewhat grey or dirty in appearance with irregular, rolled, or nodular margins. Often the surrounding mucosa is abnormal and may show gastric atrophy. If the ulcer appears suspicious for cancer gastroscopically, immediate surgery should be performed. Needless to say, errors in gastroscopic diagnosis occur, usually in the direction of calling a benign ulcer malignant.

Although carcinomatous ulceration does not respond to peptic ulcer therapy, considerable healing may take place in adjacent areas of peptic digestion. Because residual shallow ulceration may not be demonstrable on X-ray examination, repeat gastroscopy should be performed to determine complete healing. Occasionally a persistent "crater" on X-ray may represent a depressed scar of a healed ulcer. Appreciation of this phenomenon at gastroscopy may prevent unnecessary surgery.

Since 1960 with the advent of the flexible fiber-optic gastroscope, gastroscopy has gained wider use and patient-acceptance. Performed under moderate sedation with lo-

cal anesthesia to the posterior pharynx, the examination can be accomplished quickly and safely. Because of the fiberscope's flexibility and maneuverability, virtually the entire stomach may be studied. The patient may be examined in the sitting, supine, and lateral decubitus positions with minimal discomfort. In the past few years further refinements and improvements have been made in the optical system and light source, allowing simultaneous gastric photography. Gastric photography has added a new dimension in that it allows the gastroscopist a second chance to study the lesion on film and provides a permanent record of the findings.

One disadvantage of the fiber-optic gastroscopes is their absent or limited biopsy capacity. However, biopsy per se assumes less importance when one realizes that a negative biopsy does not exclude carcinoma, and a positive biopsy does not often avert surgery.

SURGERY. When appropriate studies indicate possible carcinoma or when ulceration fails to heal completely, exploratory surgery is indicated. The findings at surgery dictate the type and extent of resection necessary. If tumor is found, the surgeon must decide between a hopefully curative procedure or palliation. For a benign ulcer wedge resection with wide margins is recommended. A distal partial gastrectomy is favored for an antral ulcer to eliminate the antral hormone *gastrin*, a potent gastric acid stimulant, held to be important in the pathogenesis of the gastric ulcer[12]. When benign gastric ulceration has occurred in the presence of excess acid secretion as with an associated duodenal ulcer, a vagotomy may be added to the procedure.

GASTRIC IRRADIATION. When surgical treatment is warranted for an indolent benign gastric ulcer but is contra-indicated by severe coexisting disease, gastric irradiation to suppress HCl may be useful as a secondary modality of treatment[13, 14, 15]. In a large series of 1405 peptic ulcer patients receiving adjunctive radiation therapy between 1937 and 1955, reported by Palmer[13], 58 per cent of the 154 patients with a gastric ulcer had healing with no recurrence. Forty (40) per cent of the total group of ulcer patients sustained a 50 per cent decrease in acid for one or more years. Achlorhydria of two or more years' duration was achieved in only 4 per cent.

CASE REPORT. In April 1964 R. H., a 70 year old Negro man, was admitted to the Cincinnati V. A. Hospital because of hematemesis, preceded by two weeks of intermittent heartburn. He denied previous ulcer symptoms. He was sweating on admission with a BP of 90/60 and a hematocrit of 28 per cent and received two units of blood. An upper G. I. series on the second day disclosed a benign-appearing 1.5 centimeter pre-pyloric ulcer on the greater curvature, confirmed by gastroscopy. Gastric analysis revealed hydrochloric acid in normal amounts. Gastric cytology was negative for malignant cells.

The patient rapidly became asymptomatic on a modified Sippy diet, antacid and anticholinergic therapy. Repeat barium study three weeks after admission showed an approximate 40 per cent reduction in the size of the ulcer with no further healing demonstrated on X-ray three weeks later. Two repeat gastroscopies failed to reveal the ulcer so easily seen on admission.

Because of the persistent crater on X-ray films, the patient underwent exploratory laparotomy, and an antrectomy was performed. Grossly the surgical specimen was free of ulceration. Two centimeters from the pylorus there was a shallow depression with folds radiating into it but no mucosal ulceration. Histological section through the entire crater proved it to be a healed, fully epithelialized ulcer.

The case emphasizes some of the limitations of standard guidelines in the management of the gastric ulcer. Had the fact of complete healing been appreciated radiologically and gastroscopically, unnecessary surgery could have been avoided.

SUMMARY AND CONCLUSIONS. In the management of a gastric ulcer, medical or

surgical, there is a need to individualize each patient. Empirical rules of thumb are helpful but must be tempered by clinical judgement. To help exclude underlying malignancy every available diagnostic technique should be utilized.

Since the clinician's judgement is correct in the vast majority of gastric ulcers considered to be benign after appropriate evaluation, a trial of intensive medical therapy seems justified. In most cases this requires initial hospitalization.

As part of the initial evaluation gastric analysis is essential, since an ulcer in the presence of histamine-fast achlorhydria must be regarded as an ulcerating carcinoma until proven otherwise. L. D. H. concentration and cytologic examination of gastric juice may also be very helpful.

Although radiographic evaluation of the benign or malignant nature of a gastric ulcer is fairly reliable, gastroscopic visualization of the ulcer is perhaps the best single measure in determining its nature. Repeat gastroscopic examination is advisable to confirm complete healing, which usually occurs in six to eight weeks.

Should any diagnostic procedure suggest carcinoma or if complete healing does not occur, surgery should be performed without further delay.

When surgery is indicated for a benign ulcer but is not feasible, gastric irradiation may be helpful as an adjunct to medical therapy.

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Long-Term Effects of Oral Contraceptives to be Studied

Long-term effects of oral contraceptives will be studied by the Kaiser-Permanente Medical Care Program, Oakland, California under terms of a $585,000 contract with the National Institute of Child Health and Human Development, one of the National Institutes of Health. The contract was announced today by the Public Health Service, U. S. Department of Health, Education, and Welfare.

This contract will be the initial phase of a study designed to resolve some of the questions about possible long-term effects on the health of women taking oral contraceptives. Part of the study is to develop a system for continuing surveillance of contraceptive use over a long period of time. The 18-month initial phase will be concerned with organizing and characterizing the study population, collecting and analyzing preliminary data.

More than 15,000 females between the ages of 20 and 54 who have been members of the Kaiser-Permanente Medical Care Program for two or more years and reside in the Walnut Creek, California service area will be eligible for the study. Female health plan members, who become eligible after the study begins, will be invited to participate. It is expected that about 75 per cent of the eligible women will volunteer to take an active part in the project.

The women will be categorized as to their use of contraceptive drugs. Their past medical history will be extracted from computerized records already available. They will be given extensive physical and gynecological examinations upon entering the study and will be examined at regular intervals thereafter. As part of the examination, they will undergo a comprehensive battery of laboratory tests in a specially designed automated laboratory. The results will be analyzed by a computer programmed to automatically advise additional tests and follow-up visits to physicians when necessary.

There is some controversy among scientists as to the mode of action and the immediate and long-term physiological effects of the oral contraceptive drugs. A wide variety of adverse effects has been reported as occurring in the users of these drugs, but such effects are not peculiar to those taking the drugs, since they also occur in a wide variety of other circumstances in individuals not using oral contraceptives. There has been particular concern over the possible increased incidence of malignant tumors, increased incidence of thrombo-embolic phenomenon, and the possible alteration of reproductive or genetic potential among women who use oral contraceptives for a long time.

It is clear that a long-term prospective study—using a large, well-defined and closely supervised population—with a flexibly designed protocol is needed to clear up the many unanswered questions in this area.

Kaiser-Permanente possesses the capabilities necessary to the successful conduct of such a study. It developed a capability for conducting longitudinal studies on large population groups where the study requires statistical analysis of data based on comprehensive medical observations and laboratory test results. The Kaiser-Permanente Program has clinical facilities where they can perform up to 2,000 periodic health examinations per month. Automated electronic and computer equipment is utilized as an integral part of this comprehensive health examination. This "multiphasic screening" procedure, combined with the automated data collection, evaluation capability, and availability of a known population, permits them to do this type of study with a large population and many variables. This system has been developed in part through support from the Public Health Service and the Food and Drug Administration.

Director of the project is Dr. Frederick A. Pellegrin, Chief, Department of Internal Medicine, Kaiser-Permanente Medical Care Program, Walnut Creek, California.

Review Of The Present Status Of Meniere's Disease

James J. Hicks, M. D.,* Julius N. Hicks, M. D.,** Harold N. Cooley, M. D.***

Birmingham, Alabama

Ménière's disease, until recently, has been considered a vague, indefinite clinical entity. Some, in fact, have questioned if Ménière's disease, as we know it today, was even the condition first described by Prosper Ménière in 1861. Since the pathological evidence of the disease continues to remain unclear, understandably, interest in carefully delineating the symptoms and cause is often lacking.

Our immediate concern as practicing physicians is first to recognize the symptoms of the disease, and secondly to relieve the symptoms, and thirdly attempt to remove the cause. There are two sets of principal symptoms in Ménière's disease: (1) episodic vertigo often associated with nausea and vomiting; (2) tinnitus and deafness in one or both ears. The onset of Mèniére's disease usually occurs in middle life and appears to affect both sexes equally. It has been estimated that one per cent of the American population suffers from this condition.

In our experience, during the past decade Ménière's patients have increasingly been seeking medical aid. This may be interpreted as an increase in the condition, but more likely is an example of what happens as a society becomes more affluent. Twenty years ago a patient consulted his physician only when life was threatened or when the disease state was disabling. However, today he unhesitatingly will consult his physician for less major complaints. Also, 20 years ago yearly physical examinations were enjoyed only by the wealthy and neurotic, whereas today it has become commonplace.

Ménière's patients usually seek relief from the episodes of vertigo; however, upon questioning, they frequently will report tinnitus preceded the vertigo. They describe the tinnitus as hissing, roaring, or ringing. While some are aware of a decrease in hearing, in others it is only evident when their hearing is tested. The loss in hearing, as well as the tinnitus, in most patients will fluctuate in intensity from day to day, being intense during the vertiginous episodes and mild between. Many report a fullness or pressure in the ear preceding the episodes of vertigo; in others the onset of vertigo is quite sudden. The acute episode of vertigo may last but a few minutes, or it may continue for several hours. Long remissions, lasting several days, weeks, or months, may occur, but it appears from our observations that the periods of remission become shorter as the disease pro-

*Professor and Chairman, Division of Otolaryngology, University of Alabama Medical Center.

**Associate Professor, Division of Otolaryngology, University of Alabama Medical Center.

***Associate Professor, Division of Otolaryngology, University of Alabama Medical Center.

gresses. The hearing loss during the early phase is usually for higher tones which are easily detected with a pure tone audiogram, and later all ranges are affected as the disease progresses. Very frequently just one ear is affected and the hearing loss can be readily demonstrated with a watch tick test or tuning fork. The distortion caused by one ear's hearing differently than the other is more disturbing to some patients than the actual loss of hearing.

Nystagmus is present only during the acute attack of vertigo, and caloric testing between episodes may indicate a normal functioning vestibular apparatus. Caloric testing with cold water usually will duplicate the vertigo the Ménière's patient has been experiencing. If it does not, one must continue the examination to rule out the possibility of some other disease.

When the pathophysiology of a disease is not completely understood, many treatment programs are frequently used. The following presents a treatment program we have used with success. As mentioned above, once the diagnosis is established our problem is two-fold: (1) to relieve the symptoms and (2) attempt to eliminate the cause. To relieve the symptoms of an acute attack of Ménière's disease, a three-pronged approach is needed: assurance that Ménière's disease is a non-lethal disease and the vertigo will subside in a few minutes or hours at most; as an adjunct sedatives and/or tranquilizers have been helpful to control tension and anxiety; and the antiemetics, anticholinergics, or antihistamines to control the vertigo and nausea.

In many, sedatives and/or tranquilizers are the mainstay to relieve the anxiety and tension resulting from an acute vertiginous episode. The oldest and still most frequently used preparation is phenobarbital, and one of the more recent is chlordiazepoxide hydrochloride.* Depending upon the patient's emotional status, one must decide if they will help or complicate the situation for long term treatment and use these preparations accordingly.

For the treatment of the acute episodes of vertigo, antiemetics, anticholinergics, and antihistamines may be extremely helpful. The reason we lump these three together is that most antiemetics have some anticholinergic as well as antihistamine properties. In contrast the beneficial effect of the antihistamines is probably due to their antiemetic or anticholinergic action since there is no indication that an allergic factor is a precipitant of Ménière's disease. The oldest and perhaps most used of this group is belladonna with or without phenobarbital, and the newcomer would be diphenidol.† For prolonged treatment to prevent attacks, these drugs all have the same drawbacks, namely drowsiness, dry mouth, mydriasis and dilatation of the pupils. If the patient is hospitalized these side effects are no problem, however, when a patient must work it is impossible to administer an adequate dose. For this reason the undesired effects usually are too troublesome for these drugs to be used for prolonged treatment. Further they may mask the symptoms of such conditions as brain tumor and do little or nothing to remove the underlying cause.

Ménière's disease is also termed endolymphatic hydrops which, rightly or wrongly, suggests an increase in the pressure of the endolymph. It has been suggested abnormal pressure on the cochlear duct hair cells may be responsible for the tinnitus and loss of hearing, and the increased pressure of the endolymph on the labyrinth hair cells may cause the vertigo. Several investigators have indicated the cause of the increased pressure

*Librium®

†Vontrol®

of the endolymph may result from a vascular dysfunction. If these assumptions are valid, it is only logical to use agents to correct this vascular dysfunction as an aid for the prevention of episodes. As a result of these theories, a number of so-called vascular dilating agents have been evaluated. Perhaps the oldest and still most frequently used of this group is nicotinic acid, with the newcomer in the group being nicotinyl alcohol‡ and histamine chronologically somewhere in between. The results with all have been controversial, with some investigators reporting excellent results and others reporting negative results. In our hands we have obtained the best results with histamine, which was the mainstay of our medical management of Ménière's disease.

Recently a histamine-like agent, betahistine hydrochloride§ became available. We, as well as others[1, 2, 3, 4, 5], have demonstrated it to be helpful to decrease the number of episodes of vertigo associated with Ménière's disease. Subsequent to the above mentioned report we administered this medication to 54 patients with Ménière's disease in an uncontrolled fashion for a few days to 12 months. In this series there were 37 females and 17 males. The ages ranged from 20 years to 81 years of age, and averaged 50 years. Eighteen patients were under 40 years of age, 18 were between 40 and 60, and 18 were over 60 years of age. Initially we administered one tablet (4 mg.) three times a day if the symptoms were mild or moderate and one tablet four times a day if the symptoms were severe. Subsequently we found in 19 of the 54 patients it was necessary to increase the dosage to two tablets four times a day. If we had not increased the dose in these 19 patients, they would have been included in the no response group, whereas with the increased dose they are obtaining relief from their symptoms.

Of the 54 patients, 41 are still taking the betahistine after 6 to 12 months. All of the 41 experienced a reduction in the number and severity of their episodes of vertigo. Seven patients obtained no beneficial effect from the drug. Four discontinued the medication because in their opinion they were cured. With our present knowledge one must assume their symptoms will recur. One male, age 60, discontinued the medication because he reported it made him nervous, and one 27 year old female reported it made her nauseated. One cannot project from 54 patients if this is a true incidence of the side effects.

These results appear most encouraging, and at this time it would appear approximately 75 per cent of the Ménière's disease patients may be managed medically. Not all patients will remain completely free of episodes, but in those not free of episodes, the symptom vertigo was decreased in severity so that it was compatible with their daily routine of living. Evaluation of the symptom tinnitus proved most difficult, since initially in most patients their description was vague, and we have found no objective means of measuring the severity of tinnitus. Although all of the patients had a loss of hearing in one or both ears, at this time we are unable to determine if this medication will reverse their hearing loss or stop further loss. Our experience has been the hearing will fluctuate from day to day, being more severe during episodes of vertigo. For this reason the only true test will be to compare the findings of a series of hearing tests given during four or five years of treatment.

If the patient does not respond to medical management and the attacks of vertigo are intractable and crippling, the patient then becomes a candidate for surgery. Surgical treatment consists mainly of two techniques: destruction of the labyrinth or selective destruction by cryogenic or ultrasonic procedures. Surgical destruction of the labyrinth will destroy the hearing but will cure the vertigo in practically every patient. If the

‡Roniacol®

§Serc®

hearing has been lost because of the Ménière's disease, this would be the procedure of choice. While selective destruction in many will not destroy the hearing, it in turn will cure the vertigo in only 70 to 75 per cent of the patients. Because surgical intervention is so drastic, the advantages must be weighed against the disadvantages and both carefully explained to the patient. For successful results, the preparation of the patient as to what he may expect, in some instances is as important as the surgery.

(1) A description of Ménière's disease is presented.

(2) The diagnostic features are presented.

(3) A treatment for acute episodes is presented.

(4) A prophylactic treatment is presented.

(5) Two surgical procedures are briefly presented.

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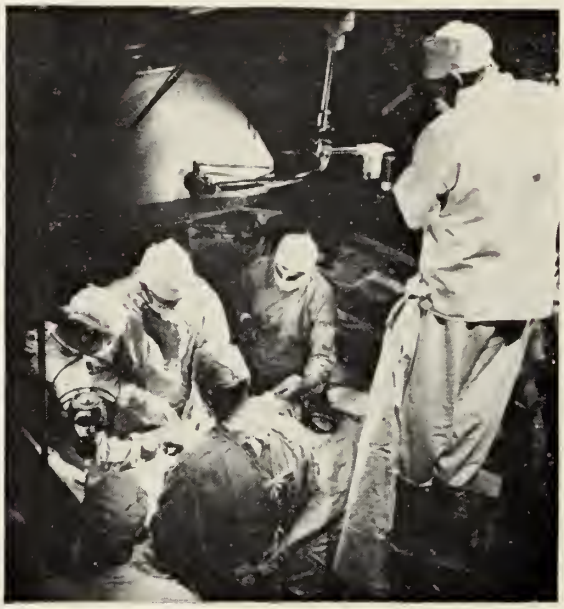
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The Time Bomb Disease

Melvin L. Butler, Captain, Medical Corps

The purpose of this paper is to call attention to the relatively rare disease Melioidosis. In some cases a prolonged latent period exists between infection and symptoms and when symptoms do occur they are often "explosive" in nature. The press has coined the term "time bomb disease" in reporting some recent cases, most of which occurred in men returned from Viet Nam.

Melioidosis is endemic in Southeast Asia and is the cause of an infectious disease of rodents[1]. The etiologic agent is Pseudomonas pseudomallei, an opportunistic type of organism, i.e. a patient may be infected yet have no symptoms until subjected to a period of stress.

WHY SHOULD A PHYSICIAN IN ALABAMA HAVE KNOWLEDGE OF THIS DISEASE? Aside from the purely intellectual satisfaction there are at least two reasons for being cognizant of the disease: (1) The number of people who have served or will serve in Southeast Asian countries is increasing as are cases of melioidosis. (2) Cases have now been recorded in people who have never traveled outside the United States[2], therefore a physician need not deal with patients having had overseas travel to encounter the disease.

THE ORGANISM: Pseudomonas pseudomallei is a gram negative, motile bacillus with bi-polar staining characteristics, resembling the glanders bacillus. Colonies appear gray to creamy in color when grown on blood agar and can also be grown on Salmonella-Shigella and MacConkey's media. It is easy to overlook the colonies as a contaminant on culture.

The bacillus has been found in soil and water and can evidently be acquired by ingestion of contaminated food or water as well as by skin penetration, however man to man transmission has not been demonstrated. Sheep and other domestic animals with no history of previous location in Asia have been found to harbour the organism[3].

SIGNS AND SYMPTOMS: The onset of melioidosis is usually acute with fever, chills, cough, bloody, purulent sputum, diarrhea and abdominal pain. Pulmonary symptoms are usually prominent and may mimic miliary tuberculosis, indeed the basic lesions in such cases are multiple discreet abscesses in the lungs. Jaundice, pneumonia and septicemia complete the clinical picture of an acute case.[4]

Some cases may present as septicemia with the initial lesion being a superficial ulcer and cellulitis. In the chronic form of pulmonary involvement the disease resembles tuberculosis or fungal infection. Multiple abscesses may occur in any location but the organs most likely to be involved are lungs, liver, spleen, kidney, prostate and lymph glands in order of decreasing frequency. The abscesses may form sinuses, and osteomyelitis is not an uncommon complication.[5]

In essence the patient having melioidosis presents as a toxic individual with signs and symptoms which are striking but not diagnostic of any single disorder and only suitable laboratory procedures can establish the accurate diagnosis.

MAKING THE DIAGNOSIS: When faced with a patient having the acute form it is im-

Captain Butler was graduated from the Medical College of Alabama in 1964. He is presently serving in the United States Army in Europe as a battalion surgeon.

perative that the physician make the diagnosis early. Mortality in such cases reaches 98 to 99 per cent unless proper treatment is instituted rapidly!

Melioidosis should be considered in the differential diagnosis of a fever of unknown origin. In a recent series of 110 such cases found in U. S. military hospitals located in Viet Nam two of the patients eventually were found to have melioidosis.[6, 7] Certainly in dealing with a non-diagnosed fever one should take a thorough geographic history.

The bacilli can be isolated from urine, blood, sputum and exudate but it must be remembered that it is often hard to isolate P. pseudomallei from abscesses and sputum by culture, probably because of overgrowth of staphylococci and large volumes of necrotic material.[8]

The agglutination and complement fixation tests are positive at two to four weeks after infection and a complement fixation test at 1:160 is very suggestive, however a diagnosis can only be accomplished by bacteriologic methods. Nothing less than the isolation of the etiologic agent accompanied by confirmation by an expert is accepted as proof of the diagnosis.[9] A fluorescent antibody technique for identifying the organism has now been developed but is not widely available.

TREATMENT: In the acute case, aside from supportive measures, the mainstay of therapy is treatment with the appropriate antibiotic. P. pseudomallei is usually resistant to penicillin but has been found to be sensitive to other antibiotics such as tetracycline chloramphenicol, sulfadiazine, and kanamycin. Judging from reports of successfully treated cases it appears that the drugs of first choice are oxytetracycline, chloramphenicol and sulfadiazine.[10]

SUMMARY: Melioidosis is a rather exotic disease but due to many of our citizens serving throughout the world more cases are being found in the U. S. The causative organism is a gram negative bacillus which usually strikes when the patient is under stress and body defenses are weakened. The most common clinical picture is that of a fulminating pneumonia and septicemia, although a chronic form does occur. Diagnosis is best made by bacteriologic means and treatment consists of vigorous use of properly selected antibiotics.

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Let's be specific about Campbell's Soups... and *reducing diets*



There are more than 30 million people in America who are overweight. During the next year, you probably will see more than 1,000 of them in your own practice.

One good way to help these patients is to give them a reducing diet based on ordinary eating patterns.

Campbell has prepared a sensible plan for weight control based on ordinary eating patterns. The plan consists of a patient instruction booklet and a set of menus which provide approximately 1,200 calories daily. The menus are balanced to provide the minimum daily requirements of nutrients.



To obtain a supply for your office write to:
Campbell Soup Company, Box 265, Camden, N. J. 08101

Conventional Radiography

The restless duodenum makes radiographic diagnosis difficult, uncertain and often unproductive: Is this duodenum abnormal?



Hypotonic Duodenography

Pro-Banthīne-induced duodenal calm permits full anatomic appraisal: Same patient. Duodenal normality is now evident.



• in diagnosis
• in treatment

Pro-Banthine® brand of propantheline bromide

calms the gastrointestinal tract

For fifteen years Pro-Banthine has been the most widely used anticholinergic agent in disorders of gastrointestinal motility and gastric hypersecretion. More recently Pro-Banthine has reestablished its pharmacologic effectiveness in diagnostic procedures using intragastric fibroscopy and hypotonic roentgenography.

How the X-rays were taken

In the hypotonic duodenograph[1,2] reproduced above, the gastrointestinal tract was relaxed with Pro-Banthine. The duodenum was intubated. Pro-Banthine in a dose of 60 mg. intramuscularly was used to assure prompt aperistalsis and double-contrast visualization was achieved with ordinary barium and air.

The same pharmacologic efficiency has proved of pronounced value in such conditions as: *peptic ulcer, pylorospasm, biliary dyskinesia, functional hypermotility and irritable colon.*

Contraindications: Glaucoma or severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in elderly males with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug. Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects: The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

Dosage: The maximal tolerated dosage is usually the most effective. For most *adult* patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthine (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

(1) Bilbao, M. K.; Frische, L. H.; Rösch, J., and Dotter, C. T.: Hypotonic Duodenography, Scientific Exhibit, Radiological Society of North America, Chicago, Nov. 27–Dec. 2, 1966.

(2) Bilbao, M. K.; Frische, L. H.; Dotter, C. T., and Rösch, J.: Hypotonic Duodenography, Radiology, in press.

SEARLE

Preludin® phenmetrazine hydrochloride



For complete details,
please see full
Prescribing Information.

helps keep calories at arm's length

Preludin is indicated only as an anorectic agent in the treatment of obesity. It may be used in simple obesity and in obesity complicated by diabetes, moderate hypertension, or pregnancy. For use in pregnancy, see Warning.

Dosage: One 25 mg. tablet b.i.d. or t.i.d. Or one 75 mg. Endurets® prolonged-action tablet a day, taken by midmorning.
Contraindications: Severe coronary artery disease, hyperthyroidism, severe hypertension, nervous instability, and agitated prepsychotic states. Do not use with other CNS stimulants, including MAO inhibitors.

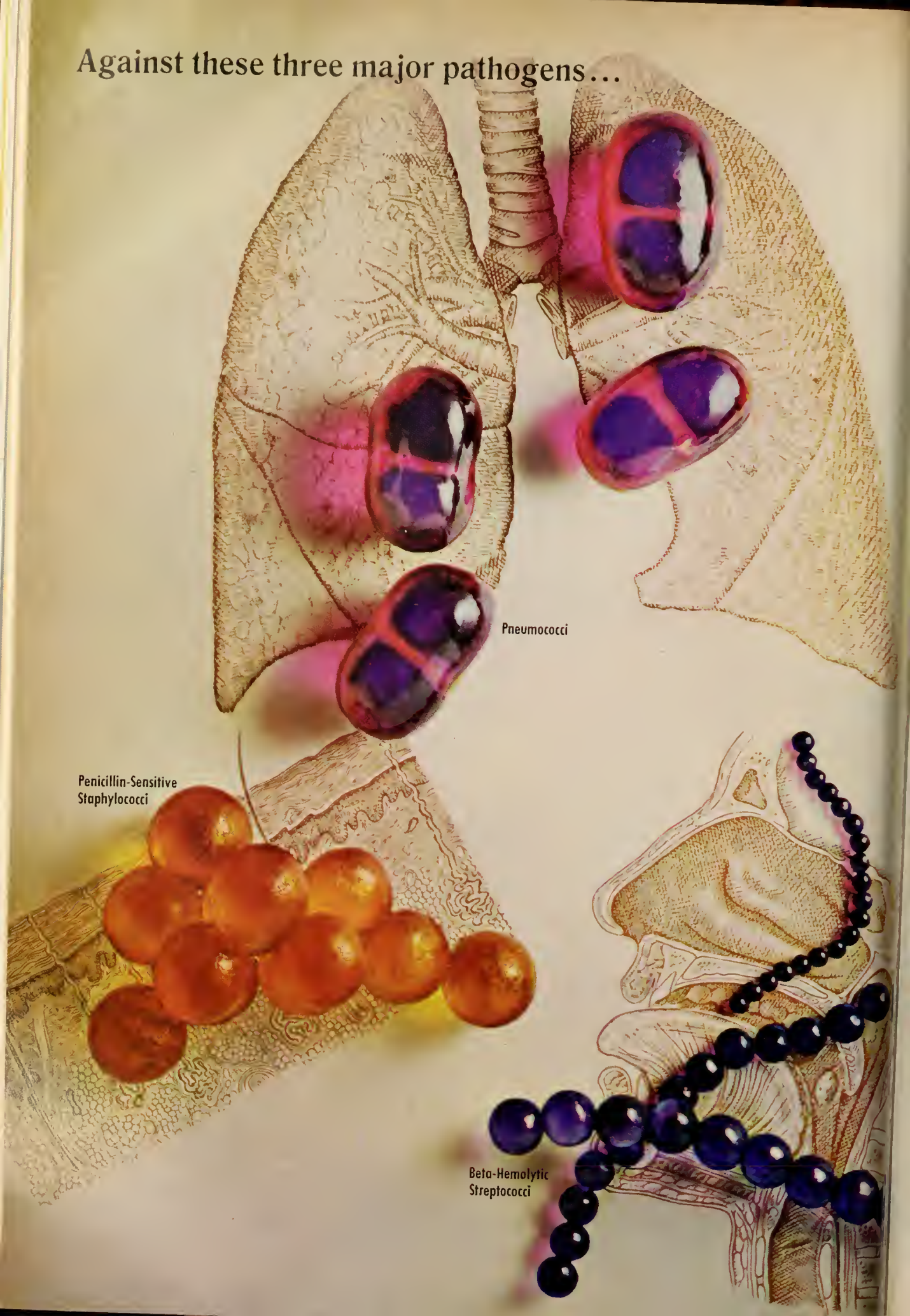


Warning: Do not use during first trimester of pregnancy unless potential benefits outweigh possible risks. There have been clinical reports of congenital malformation, but causal relationship has not been proved. Animal teratogenic studies have been inconclusive.
Precautions: Use with caution in moderate hypertension and cardiac decompensation. Cases involving abuse of or dependence on phenmetrazine hydrochloride have been reported. In general, these cases were characterized by excessive consumption of the drug for its central stimulant effect, and have resulted in a psychotic illness manifested by restlessness, mood or behavior changes, hallucinations, or delusions. Do not exceed recommended dosage.
Side Effects: Dryness or unpleasant taste in the mouth, urticaria, overstimulation, insomnia, urinary frequency or nocturia, dizziness, nausea, or headache. (B)R46-560-A

Geigy Pharmaceuticals, Division of
Geigy Chemical Corporation, Ardsley, N.Y.

Under license from
Boehringer Ingelheim G.m.b.H.

Against these three major pathogens…



V-Cillin K® provides dependable oral antibacterial therapy

because it combines a high degree of activity...

V-Cillin K has been shown to be effective in the treatment of streptococcus and pneumococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy in patients with a history of rheumatic fever or congenital heart disease.

with high blood levels, even when taken with food

V-Cillin K is stable in acid and immediately soluble. High serum levels, therefore, are reached rapidly. Because it is acid stable, V-Cillin K is well absorbed even when taken close to mealtime. These desirable properties help make V-Cillin K a dependable penicillin for oral use.



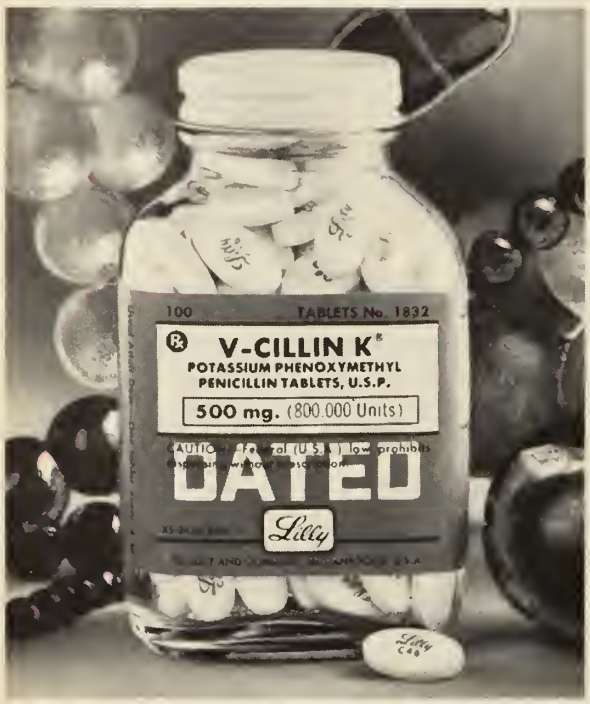
V-Cillin K® Lilly 701449

Potassium Phenoxymethyl Penicillin

Now available: V-Cillin K®, Pediatric, for Oral Solution, 250 mg. (400,000 units) per 5 cc. of solution.

(See next page for prescribing information.)

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K, the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly), combines acid stability with immediate solubility and rapid absorption. Higher, more rapid serum levels are obtained than with equal oral doses of penicillin G.

Indications: Streptococcus, pneumococcus, and gonococcus infections; infections caused by sensitive strains of staphylococci; prophylaxis of streptococcus infections in patients with a history of rheumatic fever; and prevention of bacteriol endocarditis after tonsillectomy and tooth extraction in patients with a history of rheumatic fever or congenital heart disease.

Contraindication: Penicillin hypersensitivity.

Warnings: In rare instonces, penicillin moy cause acute anaphylaxis which may prove fotal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin or with bronchial osthma or other allergies. Resuscitative drugs should be readily ovoilable. These include epinephrine and pressor drugs (os well as oxygen for inhalation) for immediate allergic manifestotions and antihistamines and corticosteroids for delayed effects.

Precautions: Use cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosoge schedules, frequent evaluation of the renol and hemotopoietic systems is recommended.

In suspected stophylococcus infections, proper loboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be ossocioted with the overgrowth of penicillin-insensitive orgonisms. In such cases, discontinue administrotion and take oppropriate meosures.

Adverse Reactions: Although serious ollergic reoctions are much less common with oral penicillin than with intramuscular forms, manifestations of penicillin ollergy moy occur.

Penicillin is a substance of low toxicity, but it possesses a significant index of sensitization. The following hypersensitivity reactions hove been reported: skin rashes ranging from maculopapular eruptions to exfoliative dermatitis; urticario; and reactions resembling serum sickness, including chills, fever, edema, arthrolgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings) Hemolytic anemia, leukopenio, thrombocytopenia, and nephropathy are rorely observed side-effects and are usually associated with high parenteral dosage.

Administration and Dosage: Usuol dosoge range, 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, 50 mg. per Kg. per day divided into three doses.

See package literature for detailed dosage instructions for prophylaxis of streptococcus infections, surgery, gonorrhea, and severe infections.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), 250 mg. (400,000 units), and 500 mg. (800,000 units).

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc. of solution (approximately one teaspoonful). [042567]

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

701449

Alabama Department of Public Health

Reaching and Teaching Through Sight and Sound

By Forest E. Ludden, M. P. H.

Director, Bureau of Primary Prevention

Southern Branch of the American Public Health Association acquired a grant from the U. S. Public Health Service in 1966 to plan and produce programs and materials for the continuing education of public health workers.

Designed to cover a three-year period, the project included three states as pilot areas. Alabama, Louisiana, and North Carolina were designated to implement this project, using as a theme and objective "Improving The Delivery of Better Health Services."

Alabama became the first of the three states to embark upon the program when in the summer of 1967 actual implementation began.

This project was viewed as an excellent vehicle for extending training and job instruction opportunities to public health workers throughout the state of Alabama and, thereby, improving services.

Of the 1,400 public health workers in Alabama, only a small percentage has had the advantage of graduate training. Specialized seminars and workshops have been available to certain public health workers; but due to prohibitive costs, attendance has been limited.

Additionally, this project provided a novel approach to public health education. Rather than segment staff by disciplines, programs relayed over open and closed circuit educational television were to be designed to provide a generalized instructional program to health department staff members in all disciplines.

The success of the project in Alabama was dependent upon co-operation of the 67 county health departments. During the spring and summer of 1967, county boards of health were requested to purchase television receivers in order that their staff would have the necessary equipment to view the programs. A prior survey had revealed that only eleven counties in Alabama had receivers. By the end of August, 51 county health departments had receivers or had ordered television sets. With over 92 per cent of Alabama's public health workers in a receiving area, educational television would provide an economical way of offering job instruction to a large number of people.

It became apparent early in planning that transmitting programs each week was useful as a learning experience but was limited. In order to bring about change in attitudes and behavior, particularly in adults, a planned discussion and evaluation session immediately following each program would be helpful. Therefore, a group discussion period was scheduled to follow each program.

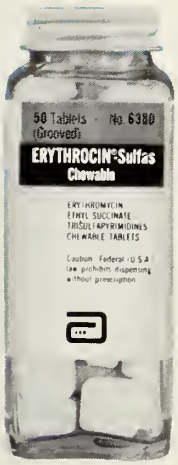
Effective organization is vital to effective discussion techniques. Discussion coordinators, recorders, and resource persons in each

(Continued on Page 570)



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New—Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT

(Continued from Page 567)

county health department were recruited to organize, conduct, and record discussion sessions

Training of these people was facilitated by dividing them geographically into five groups. Materials were prepared and one-day sessions were conducted in each of the five areas throughout the state.

Conferees were introduced to the history and philosophy of the project by Dr. H. P. Hopkins, chairman of the Continuing Education Steering Committee, Southern Branch, and Forest E. Ludden, assistant project director. Through utilization of lectures, films, maps, charts, and other visual aids, participants were acquainted with theories of adult learning and effective discussion techniques.

Group discussion coordinators' handbooks, lesson plans, study manuals, and discussion guides were distributed and explained. Members of the group were selected to participate in a simulated group discussion period which was evaluated by the entire group.

Following each of the five area sessions, participants completed the Knopp-Verner Evaluation Scale. This was used to evaluate effectiveness of workshops and to determine need for additional ones.

With the establishment of a sound foundation, actual programming was begun by the Continuing Education Project staff.

Thirty, one-half hour programs were planned and taping begun. These will be transmitted state-wide over the ETV system each Tuesday at 4:00 p. m. and repeated at 8:00 a. m. the following day. A similar schedule will be followed during the second and third year. During the project period, 90 programs will be produced by the Continuing Education Project staff.

Titles for the programs the first year are as follows:

I *Introduction to Course and Inter-Personal Relations*

1. You and Your Discussion
2. Understanding
3. Communicating
4. Cooperating
5. Our Public Image
6. Discussion of Submitted Questions and Problems

II *Communicable Disease Control*

7. Venereal Disease Control
8. Interviewing
9. Tuberculosis Control
10. Tuberculosis Control
11. Measles Control and Eradication
12. Local Immunization Programs
13. The Practice of Epidemiology
14. Discussion of Submitted Questions Problems

III *Environmental Health*

15. Your Community
16. Your Community
17. Your Biological Environment
18. Pollution
19. Food Hygiene
20. Health Care Facilities
21. Discussion of Submitted Questions and Problems

IV *Maternal and Child Health*

22. Planned Parenthood
23. Planned Parenthood

V *Adult Health*

24. Smoking and Health
25. Smoking and Health
26. Alcoholism

This is the first state to attempt to provide continuing education for all public health disciplines. Viewing programs together, discussing mutual problems, and understanding basic public health is the aim of this educational effort. Improving the delivery of better health services is the goal.

Alabama will "reach and teach" approximately 90 per cent of the public health workers in this state during the first year of the project. Reverberations, however, are expected from many other states and areas.

The project's success will not be determined in Alabama, in Louisiana, or in North Carolina. It will be determined, however, through effective utilization of pioneering methods and procedures to develop new and better educational techniques to train public health workers throughout the nation.

Medibriefs . . .

Approximately 50 per cent of United States women have experienced natural or operative menopause by age 49 and nearly 100 per cent by age 58. The mean age for menopause is 49.73 years, based on recently summarized results of the 1960-62 Health Examination Survey by the U. S. Public Health Service. Between 25 and 30 per cent of all U. S. women experience menopause as the result of surgery. There is no significant association of age at menopause or with number of children (up to 4). Nor is there any indication of a relationship between age at onset of menstruation and age of menopause. However, lean women apparently may have slightly earlier natural menopauses.—*Geriatrics,* January, p. 74.

* * *

Apology. An item titled "Crayons Can Poison" in the March, 1966 issue of the Schering Science Bulletin was published in error. It was digested from the February, 1966 issue of Current Medical Digest, which also has published an apology to "The Crayon, Water Color and Craft Institute, Inc." The item was picked up from the Schering Science Bulletin by Esquire Magazine, and following is a quote from the Institute's letter to the editor of Esquire: "Children's crayons are non-toxic. Even orange, red-orange and violet are safe, not dangerous . . ."

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1967

	Aug.	Sept.	*E. E. Sept.
Tuberculosis	120	115	111
Syphilis	115	91	120
Gonorrhea	365	431	370
Chancroid	0	2	2
Typhoid fever	1	1	1
Undulant fever	0	0	0
Amebic dysentery	1	1	4
Scarlet fever & strep. throat	440	665	61
Diphtheria	1	5	2
Whooping cough	24	10	14
Meningitis	9	2	7
Tularemia	0	0	0
Tetanus	1	2	1
Poliomyelitis	0	0	4
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	13	7	15
Chickenpox	4	5	2
Mumps	55	23	13
Infectious hepatitis	19	30	39
Typhus fever	1	0	0
Malaria	1	1	0
Cancer	433	507	613
Pellagra	0	0	0
Rheumatic fever	3	14	13
Rheumatic heart	13	29	24
Influenza	26	25	23
Pneumonia	186	147	124
Rabies—Human cases	0	0	0
Pos. animal heads	2	1	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

SEPTEMBER 1967

Examination for Intestinal Parasites	1,562
Examination for Malaria	4
Salmonella & Shigella (blood-feces-urine-food)	288
Examination for tubercle bacilli	4,000
Examination for gonococci	2,181
Serological tests for Syphilis	37,486
FTA	63
Darkfield	2
Brucella	2
General Bacteriology (cultures for isolation and confirmation)	18
Staphylococcus (cultures for isolation and confirmation	363
Examinations for diphtheria (isolation and confirmation)	1,144
Streptococci examinations	2,188
Mycology	24
Agglutinations	19
Vincent's infection	3
Complement fixation test	184
Test for Phenylketonuria (PKU)	6,625
Cytology	1,008
Water examinations	3,438
Milk and dairy products examinations	5,181
Sea food examinations	122
Examination for Negri bodies (smears & animal inoculation)	283
Virology	10
Rh Factor Bloods	718
Miscellaneous	1,668
Total	68,584

BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

July 1967

Live Births / Deaths / Causes of Death	Number Registered During July 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	5,545	3,518	2,027	18.3	19.0	20.2
Deaths	2,590	1,762	828	8.6	8.9	8.7
Fetal Deaths	100	44	56	17.7	22.0	21.0
Infant Deaths—						
under one month	117	71	46	21.1	21.3	23.2
under one year	152	87	65	27.4	26.9	28.5
Maternal Deaths	3	1	2	5.3	3.4	1.6
Causes of Death						
Tuberculosis, 001-019	16	9	7	5.3	8.7	9.8
Syphilis, 020-029	3	3		1.0	0.7	1.0
Dysentery, 045-048						0.3
Diphtheria, 055						
Whooping cough, 056						
Meningococcal infections, 057						0.3
Poliomyelitis, 080, 081						
Measles, 085						
Malignant neoplasms, 140-205	367	272	95	121.3	111.0	122.1
Diabetes mellitus, 260	42	26	16	13.9	17.4	14.9
Pellagra, 281	1	1		0.3		
Vascular lesions of central nervous system, 330-334	334	209	125	110.4	125.0	118.7
Rheumatic fever, 400-402						0.3
Diseases of the heart, 410-443	839	613	226	277.3	294.2	276.1
Hypertension with heart disease, 440-443	119	49	70	39.3	44.1	38.2
Diseases of the arteries, 450-456	87	57	30	28.8	16.4	19.6
Influenza, 480-483					0.7	0.3
Pneumonia, all forms, 490-493	54	34	20	17.8	20.1	18.3
Bronchitis, 500-502	5	3	2	1.7	2.7	0.7
Appendicitis, 550-553	3	1	2	1.0	1.0	
Intestinal obstruction and hernia, 560, 561, 570	11	6	5	3.6	3.7	4.7
Gastro-enteritis and colitis, under 2, 571.0, 764	9		9	3.0	1.7	3.0
Cirrhosis of liver, 581	17	13	4	5.6	6.4	4.4
Diseases of pregnancy and childbirth, 640-689	3	1	2	5.3	3.4	1.6
Congenital malformations, 750-759	22	18	4	4.0	4.6	3.7
Immaturity at birth, 774-776	22	9	13	4.0	6.7	6.9
Accidents, total, 800-962	206	152	54	68.1	74.2	74.8
Motor vehicle accidents, 810-835, 960	104	79	25	34.4	34.8	42.0
All other defined causes	416	273	143	137.5	134.4	130.6
Ill-defined and unknown causes, 780-793, 795	133	62	71	44.0	48.5	48.0

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population



Diagnosis:

cystitis?
pyelonephritis?
pyelitis?
urethritis?
prostatitis?

in any case,
usually gram-negative*

Therapy:

two 500 mg. Caplets® q.i.d.
(initial adult dose)

ications: Urinary tract infections caused by gram-negative and some gram-itive organisms.

e effects: Mainly mild, transient gastrointestinal disturbances; in asional instances, drowsiness, fatigue, pruritus, rash, urticaria, mild inophilia, reversible subjective visual disturbances (overbrightness of its, change in visual color perception, difficulty in focusing, decrease in ual acuity and double vision), and reversible photosensitivity reactions. ked overdosage, coupled with certain predisposing factors, has produced f convulsions in a few patients.

cautions: As with all new drugs, blood and liver function tests are advis-e during prolonged treatment. **Pending further experience, like most motherapeutic agents, this drug should not be given in the first trimester regnancy. It must be used cautiously in patients with liver disease or ere impairment of kidney function.** Because photosensitivity reactions have urred in a small number of cases, patients should be cautioned to avoid ecessary exposure to direct sunlight while receiving NegGram, and if a tion occurs, therapy should be discontinued. The dosage recommended adults and children should not arbitrarily be doubled unless under the ful supervision of a physician. Bacterial resistance may develop.

n testing the urine for glucose in patients receiving NegGram, Clinistix® gent Strips or Tes-Tape® should be used since other reagents give a e-positive reaction.

age: Adults: Four Gm. daily by mouth (2 Caplets® of 500 mg. four times y) for one to two weeks. Thereafter, if prolonged treatment is indicated, dosage may be reduced to two Gm. daily. Children may be given roximately *25 mg. per pound* of body weight per day, administered in ded doses. The dosage recommended above for adults and children uld not arbitrarily be doubled unless under the careful supervision of a sician. Until further experience is gained, infants under 1 month uld not be treated with the drug.

v supplied: Buff-colored, scored Caplets® of **500 mg. for adults,** conve-ntly available in bottles of 56 (sufficient for one full week of therapy) and in les of 1000. **250 mg. for children,** available in bottles of 56 and 1000.

erences: (1) Based on 23 clinical papers, 1512 cases. Bibliography on uest. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: imicrobial Agents and Chemotherapy—1964, Ann Arbor, American iety for Microbiology, 1965, p. 722.

Vinthrop

nthrop Laboratories, New York, N. Y. 10016

NegGram®

Brand of

nalidixic acid

a specific anti-gram-negative

eradicates most urinary tract infections...

- Low incidence of untoward effects; no fungal overgrowth, crystalluria, ototoxic or nephrotoxic effects have been observed.
- "Excellent" or "good" response reported *in more than 2 out of 3* patients with either chronic or acute gram-negative infections.[1]

*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas[2]... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

Enzymes . . . The Sparks Of Life

Combine the inert substances found in earth, sky and water. Add energy (electricity will do) and stir.

When a process akin to this takes place in a cell, one of your skin cells for example, the result is life—a new cell exactly similar to its parent.

But you, a collection of ten trillion (10,000,000,000,000) cells, can stir and stir such an elemental broth; you can add or subtract any chemicals you like; supply as much energy as possible, even using the power of the atom. In the end you'll still have just a batch of chemicals.

Only the cell, of all things on earth, can order life out of non-life. And it can do so only because of a group of unique molecules known as enzymes.

Enzymes are the sparks of life . . . the workhorses of creation.

It is enzymes that make possible conception—the union of egg and sperm.

It is enzymes that fuse into animation the inanimate molecules supplied in the womb by our mothers, and afterward by what we eat, drink and breathe.

It is enzymes that stoke the furnaces of our cells, providing energy from fuel made by still other enzymes.

It is enzymes that activate muscles, carry messages, digest food, patch wounds, fight infection. . . .

In short, it is enzymes that conduct most if not all of the hundred thousand or so biochemical processes that make us what we are. And when enzyme functions cease we revert to the dust out of which we are made.

A Science feature article prepared by the Communications Division, American Medical Association.

Essentially, enzymes are both the interpreter of the genetic code of life, inherited from our parents, and the vassals that carry out the dictates of our genes, explains Roy E. Ritts, Jr., M. D., director of the Biomedical Research Institute of the American Medical Association Education and Research Foundation.

"One of the basic axioms of biology," he said, "is that when a gene wants something done it produces a specific enzyme to perform the allotted chore.

"Conversely, when something goes wrong with a gene something also goes wrong with the enzyme it's supposed to produce. The enzyme may be deranged or missing or superfluous. The result may be disorder and disease."

This "one-gene-one-enzyme" theory, set forth by Nobel laureates Edward L. Tatum and George W. Beadle, contains vast implications for medicine. For if genes express themselves by the enzymes they produce, then it might be possible to correct genetic defects by correcting or replacing disordered or missing enzymes.

At present, points out Dr. Tatum of the Rockefeller Institute, genes are beyond the reach of medical science.

Every human cell contains tens of thousands of genes. And determining which of all these might be responsible for a genetic defect is an imposing task, to say the least.

Furthermore, genes are usually tucked away in the nucleus of the cell. So even if a defective one can be pinpointed, the only way to get at it is to destroy the cell itself—a process which doesn't seem to offer much in the way of a solution when the aim of medicine is to assure the health of body cells.

Enzymes, on the other hand, are not so sequestered. Most function in the cytoplasm

(Continued on Page 577)

b.i.d.

The sensible schedule that covers the patient day and night

If your objective in the use of a broad-spectrum antibiotic is prolonged action, with high blood levels, then you know why b.i.d. DECLOMYCIN is considered to be a sensible dosage schedule.

The maintenance dosage of DECLOMYCIN can be kept at this convenient schedule because of its unusually high effective blood and tissue levels.

The b.i.d. dosage of DECLOMYCIN gives you the comfortable assurance that the patient is well-covered, *day and night.*

In clinical practice, blood levels produced by a therapeutic dose of DECLOMYCIN are high, prolonged, and effective; because of high serum binding and slow renal clearance. And if there's a broader susceptibility pattern of organisms, we've yet to see it.

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DEMETHYLCHLORTETRACYCLINE

Lederle

Prescribing information on next page.

b.i.d. The sensible schedule that covers the patient day and night

DECLOMYCIN Demethylchlortetracycline should be equally or more effective therapeutically than other tetracyclines when the offending organisms are tetracycline-sensitive.

Contraindication: History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions—Overgrowth of nonsusceptible organisms may occure. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth— dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

In the treatment of syphilis a dosage schedule of a total of 12 to 18 Gm. given in equally divided doses over a period of 10 to 15 days should be followed. Close follow-up observation of the patient is recommended, including appropriate laboratory tests, since demethylchlortetracycline has not had adequate evaluation in all stages of syphilis. Spinal fluid examination should be included as part of this follow-up.

Acute gonococcal anterior urethritis in males has been treated effectively with a single dose of 600-900 mg. of DECLOMYCIN Demethylchlortetracycline. Individuals unable to tolerate large single doses due to gastrointestinal side effects may be treated with 150 mg. every 6 hours for a minimum of 4 doses or 300 mg. every 12 hours for a minimum of 2 doses. Females should be treated with a dosage of 150 mg. every 6 hours or 300 mg. every 12 hours until a cure is effected.

Primary Atypical Pneumonia (Eaton Agent): The average adult daily dosage is 900 mg. in 3 divided doses for six days.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, N.Y.

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ENZYMES

(Continued from Page 574)

(the fluid surrounding the cell nucleus) or outside the cell entirely.

Thus it appears that enzymes are more "approachable," and potentially more susceptible to identification and control by medicine than genes.

So far, more than 300 human disorders have been linked to genetic defects. Included are those forms of cancer and heart disease displaying a genetic tendency.

Little wonder, then, that one of the most avid pursuits of biomedical research is the dream of constructing "replacement" enzymes in a test tube.

For if enzymes can be synthesized—compounded out of chemicals from the laboratory shelf—then it also might become possible to substitute a "good" enzyme from a medicine bottle for a "bad" enzyme in some bodily function.

Much remains to be done, however, if this is to come to pass. For even now, in the atomic age, science doesn't possess the chemical knowledge to explain why enzymes act the way they do, let alone how to synthesize them.

Still, medical science is far enough along to understand that while synthesizing enzymes is a dream at present, it is a dream with solid footing.

"Within ten years, I should think, we will have a fairly complete idea of where we are going with enzymes," said Dr. Tatum. "I don't mean that we'll know all about enzymes by then. But we should be able to synthesize some of the simpler ones, and this eventually will lead us to an understanding of more complicated ones."

What are these substances—these lifeless molecules that mediate life and hold such great potential for the cure of disease?

Basically enzymes are catalysts. They cause things to happen, reactions to take place; but they don't enter into the happenings themselves.

Digestion, for example, is caused by enzymes. Yet enzymes themselves can't break down food into useful nutritional elements. What enzymes can do is cause water and food molecules to combine, creating large unstable molecules that split due to their own imbalance into smaller molecules. These in turn are further split by more water and more enzymes until food molecules are formed with the exact size and consistency for absorption into the blood stream.

For digestive enzymes this is all very simple, fortunately. Otherwise you might die of malnutrition on a full stomach. And yet in 100 years of trying, chemists haven't been able to duplicate the work of digestive enzymes.

Tearing things apart as in the digestive process, however, is only one side of enzyme activity. Enzymes also can perform as master builders.

There is, perhaps, no better illustration of their powers of assembly than the production of adenosine triphosphate (ATP).

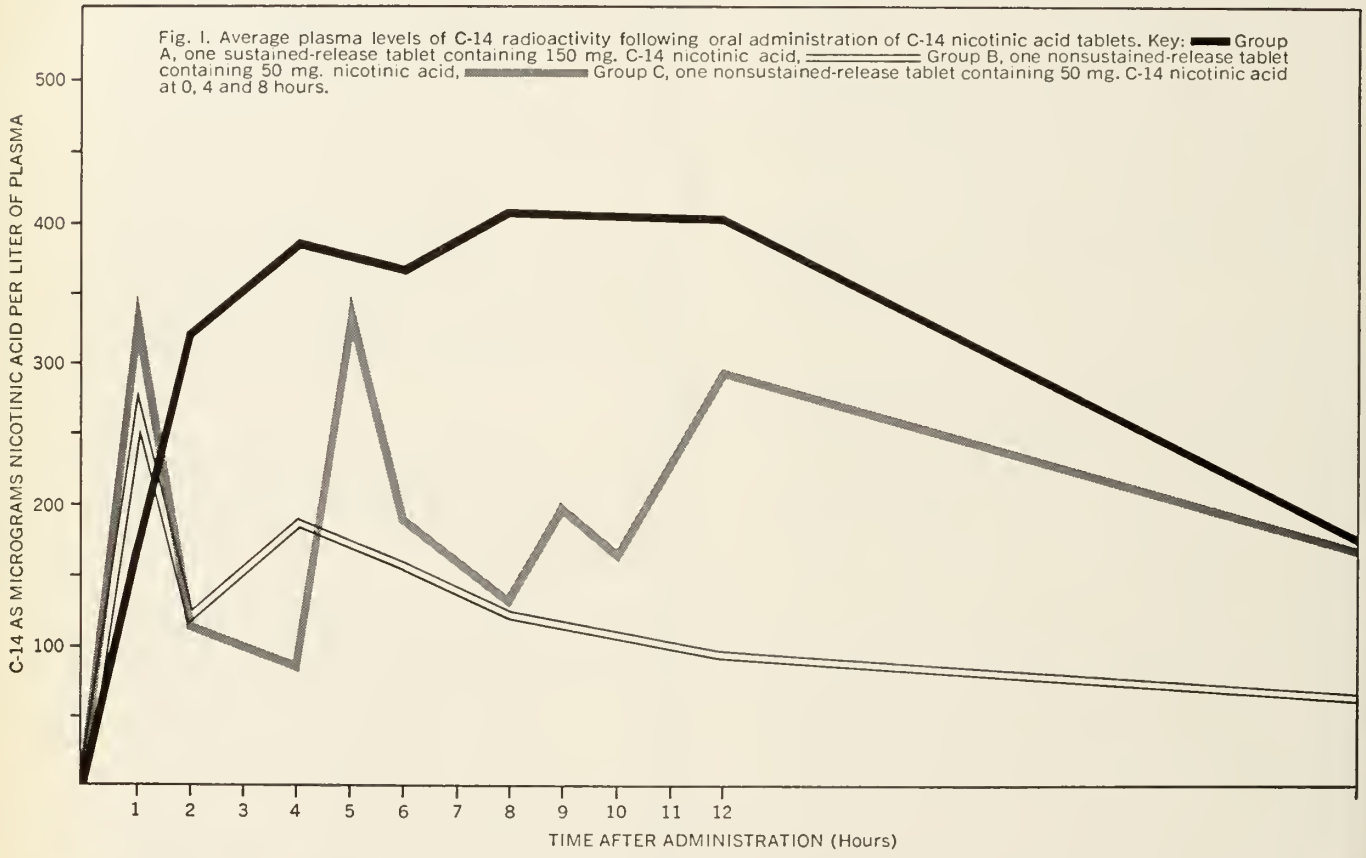
ATP is a sort of storage battery-type molecule from which your body draws energy. This unique molecule is so constructed that when acted upon by a certain enzyme an explosive separation occurs, freeing some of the electrons that bind the molecule together. These freed electrons are then utilized either as electricity, for the transmission of nerve impulses, or as mechanical energy, to force muscles to contract.

How many enzymes are involved in the complicated construction of an ATP molecule out of sugars, fats, proteins and minerals is not known. But the speed and efficiency with which enzymes build is thoroughly demonstrated by the fact that a man at hard labor may use up his weight in ATP in a single day.

Actually, digestion and ATP formation are

(Continued on Page 580)

Sustained circulatory, respiratory and cerebral stimulation for the





(fewer absent doses by absent-minded patients)

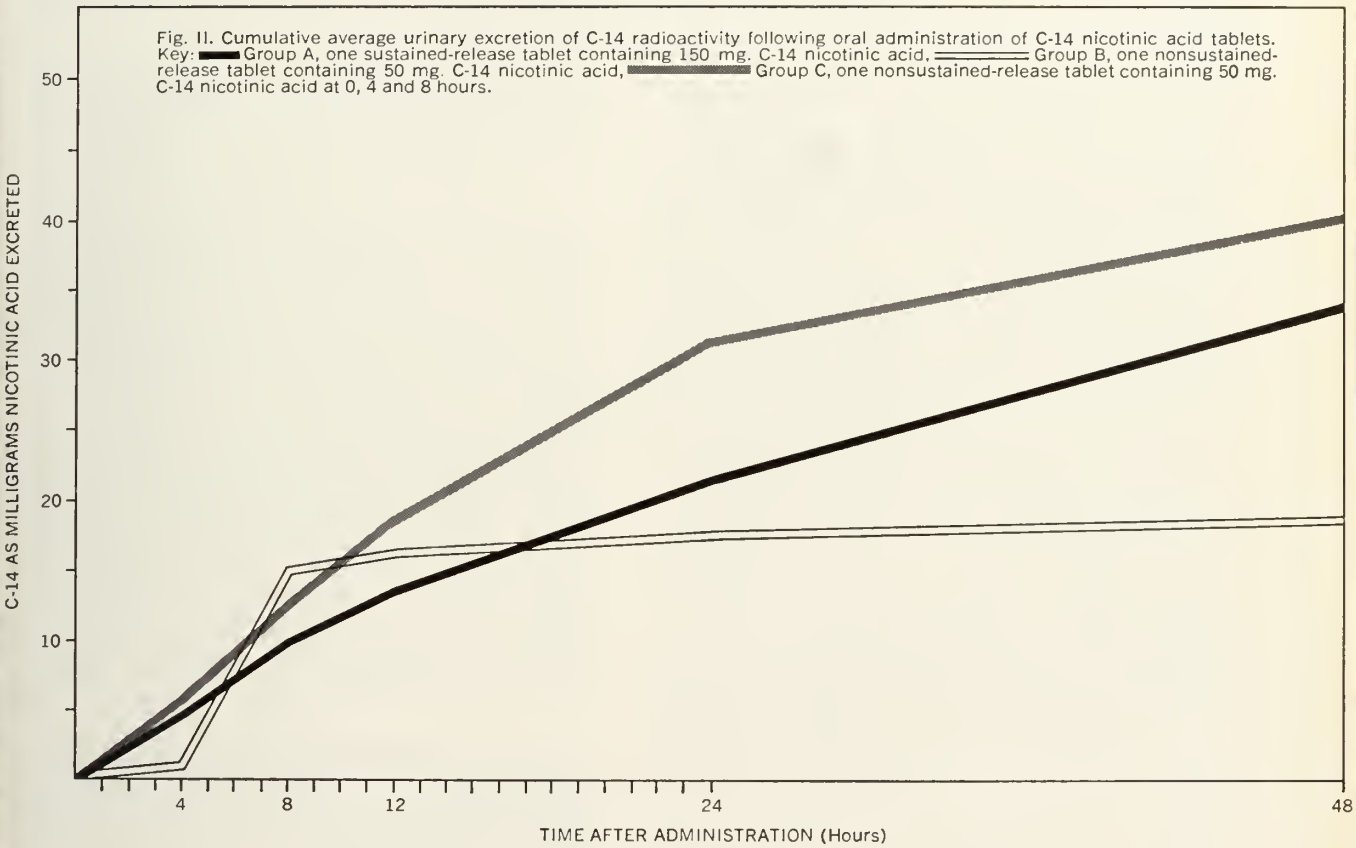
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

ENZYMES

(Continued from Page 577)

rather ordinary, if anything about enzyme function can be termed ordinary. A host of other enzymatic processes—thinking, for instance—appear to be much more sophisticated.

What it all comes down to is this: Enzymes can be depended upon to turn out miracles in a work-a-day fashion—machine tooling the elements of nature and experience into the essentials of body and intellect. The question that remains to be answered is how?

Part of the explanation, at least as far as physical happenings are concerned, may lie in the fact that most enzymes work in systems rather than independently.

Enzymes, it seems, string themselves into long chains, each link a different enzyme. A molecule that is to undergo change is picked up by the first enzyme link, altered slightly in one specific way and passed on to the second where another specific alteration takes place. So it goes from link to link. A bit is whacked off here or added on there until the molecule that comes off the other end of the chain is an entirely different substance.

But the idea that enzymes function in chains offers only a glimmer of understanding.

Still to be explained are such things as the incredible speed with which enzymes operate. One molecule of enzyme can break down or build up thousands of molecules of a substrate (the substance on which it acts) each second.

Nor can we fathom yet how enzymes manage to work their wonders with mild chemicals, such as water, and at a comfortable 98.6 degrees—the temperature of the body.

True, some enzyme reactions can be reproduced in the laboratory. But invariably these reactions occur too slowly to be biologically useful, or involve the use of harsh chemicals and high heat that would destroy life rather than create and sustain life.

Most of the difficulty science experiences in coming to grips with enzymes springs from the fact that these wondrous catalysts are so intimately bound up with the nub of being within the cell where non-life is forged into the substance of life.

For the most part this substance is protein—the bricks and mortar of biology.

Protein seems to come in an almost limitless variety of shapes, sizes and uses. Some proteins are assembled into new cells. Some are combined into life-supporting substances such as hormones and blood serum. Others are rigorously tailored into enzymes that will help make other proteins.

Despite their great variety, however, all human proteins are constructed out of just 20 amino acids. Therefore, whether a protein will be fluid lymph or brittle fingernail depends upon both the proportions of different amino acids in the protein molecule, and the order in which the amino acids are aligned and linked together.

The material which determines the amount and the sequence of amino acid—and thus what protein a cell will produce—is deoxyribonucleic acid (DNA).

DNA is the chemical substance of our genes. Every scrap of information needed to produce a human being (or any other form of life for that matter) is written in twisted strands of DNA in the nucleus of cells.

Before the information contained in DNA can be put to use, however, it must be transmitted from the nucleus to the nutrient-rich cytoplasm surrounding the nucleus where protein manufacturing occurs.

In order to overcome this communications problems, DNA produces a special "messenger molecule" known as ribonucleic acid (RNA). Using itself as a mold, DNA imprints its genetic code on RNA and sends the

coded "tape" through the pores in the nuclear membrane into the cytoplasm.

Once it reaches the cytoplasm, RNA changes roles and itself becomes a mold on which amino acids are aligned in the precise sequence for which the RNA has been coded. Thus the exact protein that the cell's DNA had "in mind" is formed.

Every step of this highly complex process, from the assembly of RNA to the welding of amino acids into proteins, is governed by a different enzyme.

Some enzymes see to it that elemental particles are placed in proper alignment on the DNA molecule for molding into RNA. Some help manufacture amino acids in the cytoplasm and, when the messenger arrives from DNA, aid in selecting and aligning amino acids on the RNA mold. Still others fuse the amino acids into protein, strip the protein from the mold and weave it, together with other proteins, into cellular substances.

As if all this weren't enough, enzymes also help put together the DNA which started the whole process in the first place.

DNA, it must be understood, is not only the carrier of the genetic code; it is also the filament around which cells are constructed.

Before a cell can divide and become two bits of life instead of one, there must be a duplicate set of DNA molecules—together with the exact genetic information contained in the originals—around which a daughter cell can take shape.

In order to duplicate DNA unzips down the middle forming two long half molecules. The "teeth" of these "half zippers" then become the molds on which a new half is constructed—a half exactly similar to the one that was unzipped.

So exact is this process, and so efficient the transfer of genetic information by the unzipping and replication of DNA, that the whole panorama of life has been transmitted across several billion years.

And yet, there could be no transmission of the code of life without enzymes to unzip DNA and enzymes to help DNA replicate.

For science, this interdependency of DNA and enzymes causes a dilemma involving speculation something like that concerning chickens and eggs.

Since DNA forms enzymes and enzymes help form DNA, which came first, DNA or enzymes?

According to some authorities, the chances of a DNA molecule being formed by the accidental alignment of chemical elements—even under the fiery conditions when the world was formed—is almost a mathematical impossibility. It seems as if enzymes would have to have been present to organize elemental substances into the highly complex DNA arrangement.

And yet, free enzymes don't exist in nature. All are produced only on orders of DNA in living organisms.

Experts on the subject have written: "The association between enzymes and life is so intimate that the problem of the origin of life itself is largely that of the origin of enzymes."

Indeed, the advent of enzymes has, like the advent of life, been termed "the most improbable and most significant event in the history of the universe."

Not only do enzymes seem to be in on the formation of life, however, they also appear to be a determining factor in what type of life evolves.

All higher organisms start out as a single fertilized cell that multiplies through cell division into two cells, then four, eight, sixteen, thirty-two, etc.

At first these cells are all alike, as might be expected since all have been supplied with the same genes through the unzipping and replication of DNA.

Yet as the number of cells increases so does their variety. Despite the sameness of

their genes some cells become skin while others become nerves, muscle, bone, blood and all the other tissues that make up our bodies.

The process by which cells give rise to different cells in a growing embryo is known as cell differentiation. At present our knowledge about differentiation is practically nil, except that it seems to come about through the activation of certain genes and the repression of certain others.

In other words, genes can be switched on and switched off to produce various types of cells, but we don't know yet what it is that pulls the switch.

Dr. Tatum believes, however, that cell environment—the chemical consistency of the fluids surrounding the cells and the chemistry of the cells themselves—is a factor in calling on different genes to start functioning. And cell environment, in turn, is largely determined by enzymes.

What has this theoretic knowledge to do with medicine? Perhaps quite a lot.

For it might open up the possibility that medicine, through enzymes, not only could correct defects after birth but also could control the enzyme environment of a developing fetus and so assure the birth of a healthy baby.

In any event, enzymes already have found a place in medicine—reducing inflammations, promoting healing and dissolving blood clots that otherwise might cause heart and brain damage.

Furthermore, in the not too distant future, enzymes may be thrown into the fight against infectious disease. Vernon T. Schuhardt, Ph. D., of the University of Texas, has reported finding an enzyme "a thousand times as powerful as penicillin" in destroying the bacteria responsible for staph infections. But whether it can be used to treat human beings must still be determined.

Still another use of enzymes is in diagnostic medicine. Already tests of the enzyme content of blood serum are being used to determine the presence of certain diseases. Acute heart attacks, for instance, can be diagnosed from the enzymes poured into the blood from injured heart cells.

Similarly, through analysis of lymph fluid, it may be possible to detect tumors which would otherwise defy identification, and, moreover, determine in which organ the tumor is located.

All this might seem like quite enough to expect from one group of organic chemicals. But there is more—perhaps much more. For there is hope that enzymes might lead medicine deep into the cell where exist the roots of so many diseases.

"It is an honored axiom of medicine that people get sick because their cells are sick," said Dr. Ritts. "Going further, research has now shown that cells get sick because their molecules are, in a sense, 'sick'—malformed, missing or misaligned.

"Since the organization of molecules in living organisms is the responsibility of enzymes, it follows that when medicine has better knowledge of enzymes and how they work, it will be in a better position to regulate molecules, cure sick cells and thus cure diseases that defy present-day medicine."

Thus if, as has been said, the advent of enzymes was "most improbable" in the first place, then the fact that enzymes do indeed exist must stand as one of nature's greatest paradoxes. For not only have enzymes given existence to life, they also are showing the way to healthier, longer life.

"Certainly enzymes and DNA do pose problems," adds Dr. Tatum. "But to solve these man has his intellectual processes—processes which in turn rely on enzymes and DNA."



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Map No.	HOTELS	Singles	Doubles	Twins	Suites
1.	HOTEL AMERICA	11.50-17.75	16.85-23.50	20-23.50	50-75
2.	CONTINENTAL HOUSTON MOTOR HOTEL	9-15	12-18	14-19	40-83
3.	LAMAR HOTEL††	9.50-18.50	13-22	14.50-22	35-135
4.	RICE HOTEL††	11.50-16.50	15.50-20.50	17.50-22.50	
5.	SAVOY-FIELD HOTEL††	8-12	10-14	10-14	
6.	SHAMROCK HILTON HOTEL	(HEADQUARTERS HOTEL—NO ROOMS AVAILABLE)			
7.	SHERATON LINCOLN HOTEL	12-16.50	16-20.50	16-20.50	35-50
8.	TEXAS STATE HOTEL††	13.50	10-15.50	12-16	40-65
9.	WARWICK HOTEL	15	18	22	55-80

Map No.	MOTELS	Singles	Doubles	Twins	Suites
10.	GRANT MOTEL*	7.50	8.50	9.50-10.50	
11.	HOLIDAY INN—CENTRAL	11	14	17	
12.	HOUSTONAIRE MOTOR HOTEL	12	15	18	
13.	LAS VEGAS MOTOR HOTEL	9-13.50	12-16.50	14.50-16.50	
14.	RAMADA INN	9.50	11.50	11.50-20.50	33-37.50
15.	ROMAN INN	9-10	12-13	15-16	
16.	SHERITON OAKS INN*	10	12	14	
17.	TIDELANDS MOTOR INN	9-10	13-14	13-16	35
18.	TOWERS MOTOR HOTEL	(CO-HEADQUARTERS HOTEL—NO ROOMS AVAILABLE)			
19.	29 PALMS MOTOR HOTEL*	6.75-7.75	8.75-9.75		
20.	WHITE HOUSE MOTOR HOTEL	9-12	10-12	12-16	

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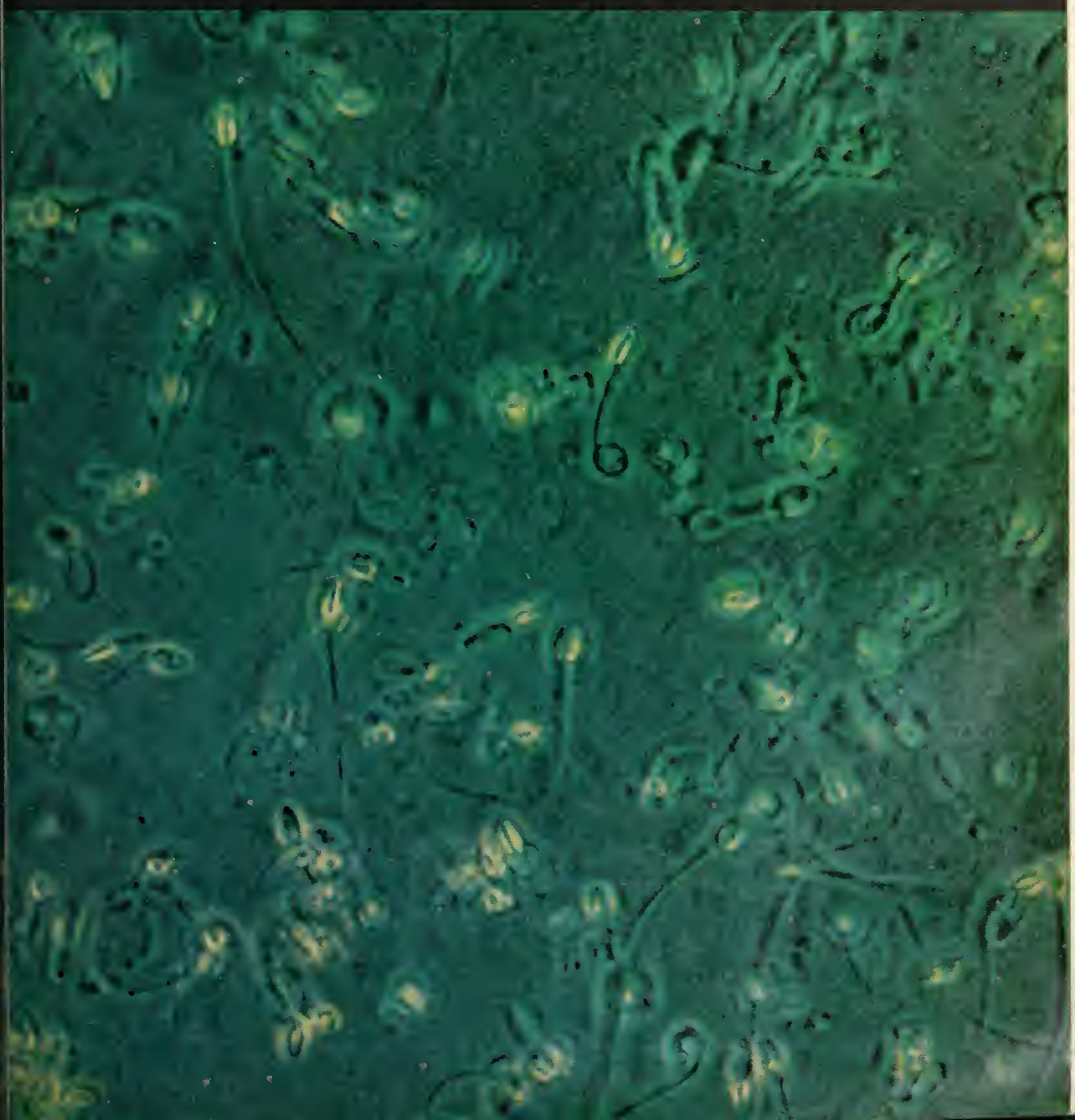
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Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Prescribing Information

Contraindications: Patients with any symptoms or history of thrombophlebitis, pulmonary embolism, liver dysfunction or disease, carcinoma of breast or genital organs, or undiagnosed vaginal bleeding.

Warnings: Discontinue medication pending examination if there is sudden partial or complete loss of vision, proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. The safety of Norinyl-1 in pregnancy has not been demonstrated. If a patient misses two consecutive periods, pregnancy should be ruled out before continuing the medication. If she has not adhered to the prescribed schedule, pregnancy should be considered at the first missed period. Active ingredients of oral contraceptives have been detected in the milk of mothers who received these drugs; the significance to infants has not been determined.

Precautions: Pretreatment physical should include examination of the breasts and pelvic organs, as well as a Papanicolaou smear. If endocrine or liver function tests are abnormal during therapy, repeat tests are recommended after the drug has been withdrawn for two months. Following administration of drug, preexisting uterine fibromyomata may increase in size. Careful observation and caution are required for patients with symptoms or history of epilepsy, migraine, asthma, cardiac or renal dysfunction, cerebrovascular accident, psychic depression, and diabetes. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Possible long-term effects of the drug on pituitary, ovarian, adrenal, hepatic or uterine function must await further studies. The physician should be alert to the earliest manifestations of thrombophlebitis and pulmonary embolism. The drug should be used judiciously in those young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask symptoms of the climacteric. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation posttreatment, premenstruallike syndrome, changes in libido, changes in appetite, cystitislike syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, and itching. The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has neither been established nor disproved): thrombophlebitis, pulmonary embolism, neuroocular lesions.

The following laboratory tests may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

norethindrone — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

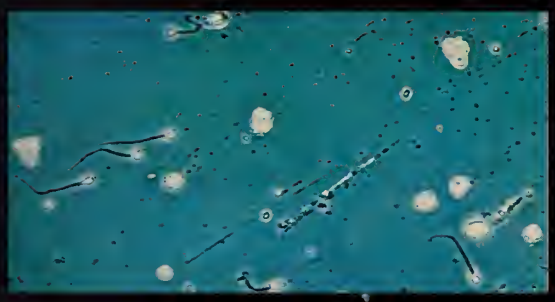
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

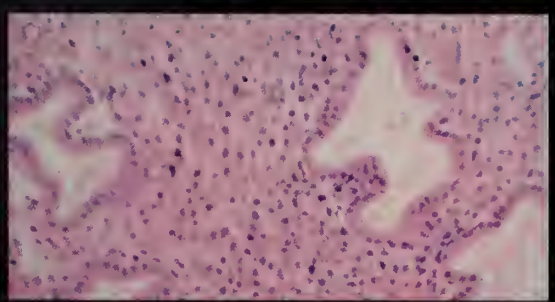
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.



Spermatozoa appear healthy, active, freemoving.

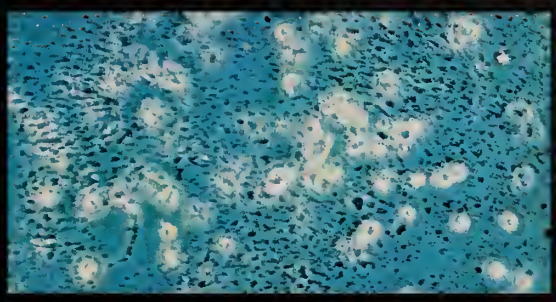


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

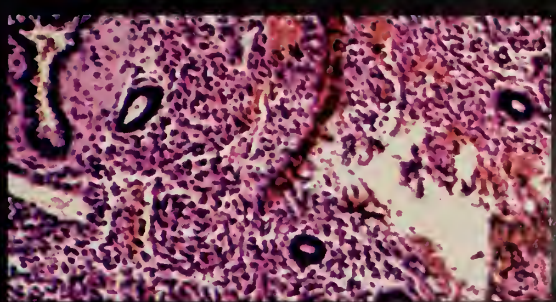
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

Norinyl®-1 tablets
(norethindrone 1mg + mestranol 0.05mg)

- new low dose of time-proved ingredients
- established norethindrone/mestranol ratio
- lower patient cost

An uncommon steroid for common inflammatory dermatoses

In everyday topical steroid therapy, Synalar produces rapid resolution of inflammation and itching in steroid-responsive dermatoses—and at relatively low cost to the patient.

Advanced molecular design enhances potency

Synalar combines the advantage of earlier corticosteroid compounds with unique structural innovations. As a result, preparations of Synalar 0.01% and Synalar 0.025% have been reported to be more potent topically and significantly more effective than hydrocortisone 1.0%. The unique fluocinolone acetonide molecule provides one of the most useful topical corticosteroids for everyday practice.

Impressive clinical results in a wide range of dermatologic problems

The clinical efficacy of Synalar has been extensively documented in the world literature. Commonly encountered diseases such as allergic and contact dermatitis, eczematous and seborrheic dermatitis, and neurodermatitis respond rapidly to Synalar, often where previous therapy with other topical corticosteroids has failed.

Low patient cost for wider usefulness

With Synalar, a high degree of efficacy does not mean high price. And—a small quantity goes a long way. Thus, your patients can often obtain the "economy" of a hydrocortisone preparation with the proved efficacy of a potent, truly advanced steroid.

Synalar®
fluocinolone acetonide





Turn page for contraindications, precautions and side effects

For everyday topical steroid therapy

Synalar® 0.01%

fluocinolone acetonide provides economy in two practical dosage forms

For general use, the most economical and widely applicable concentration of Synalar is 0.01% Cream in a water-washable, vanishing cream base. Synalar Solution 0.01% is especially valuable in dermatoses involving moist, intertriginous areas or hairy sites where creams and ointments do not spread or penetrate readily. Synalar Solution is a unique dosage form—clear, nongreasy, cosmetically elegant.

Product Information

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. *Precautions:* Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. *Side Effects:* Side effects are uncommon with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. In such cases the agent should be discontinued and appropriate measures taken. *Availability:* Synalar (fluocinolone acetonide) Cream 0.025%—5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01%—15, 45 and 60 Gm. tubes and 120 Gm. jars. Solution 0.01%—20 and 60 cc. plastic squeeze bottles. Ointment 0.025%—15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream—5, 15 and 60 Gm. tubes.

Fluocinolone acetonide—an original steroid from

SYNTEX LABORATORIES INC., PALO ALTO, CALIF



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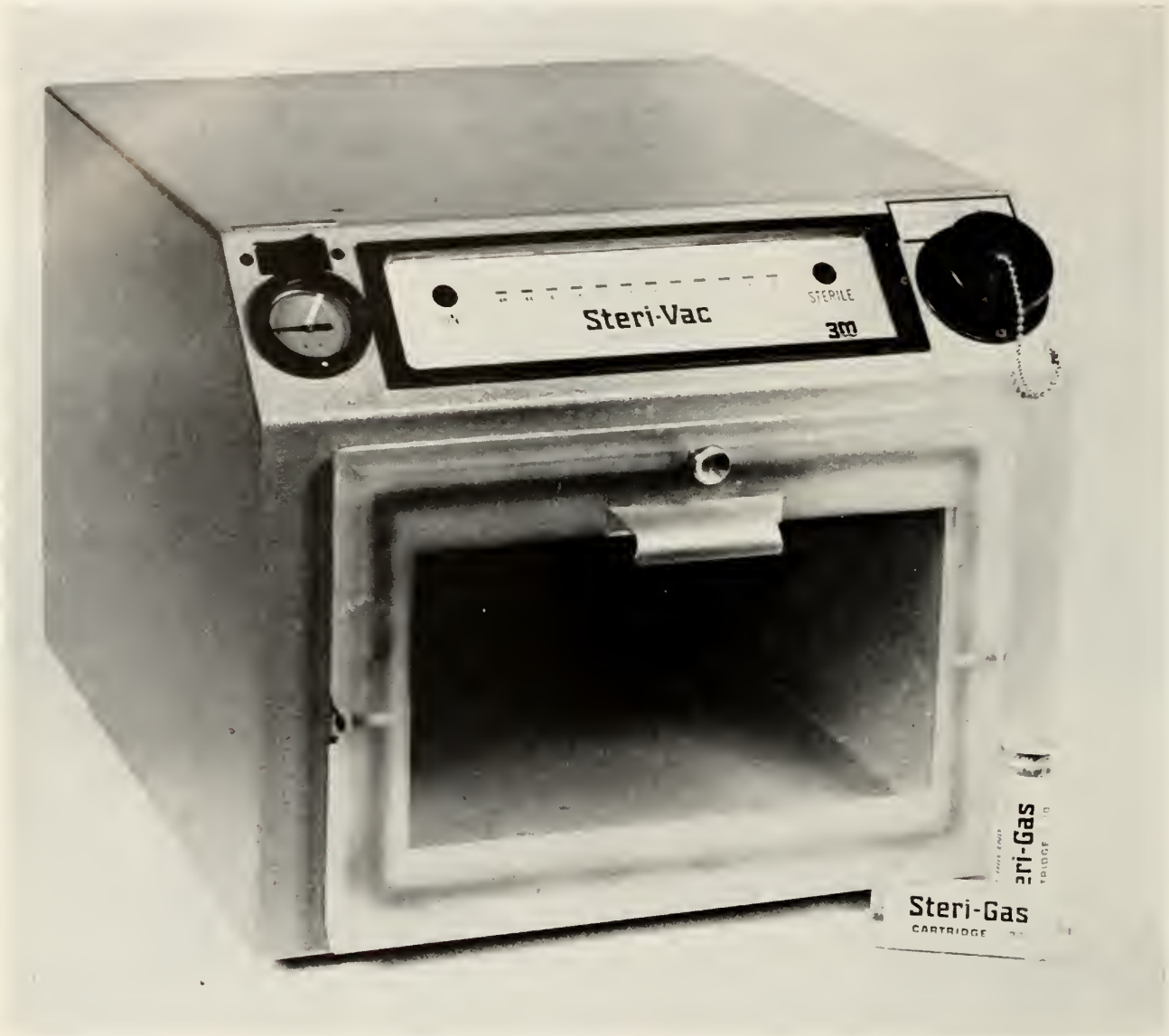


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The 3M Company has introduced the STERI-VAC Brand Gas Sterilizer which provides a rapid and economical method of accomplishing gas sterilization. The unit's automation, portability, and simplicity of operation bring a new concept of gas sterilization to the medical profession.

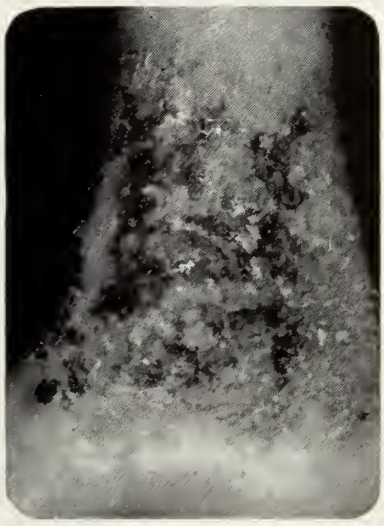
The model options allow a selection of the Model 100H (15" chamber depth), the 200H (24" chamber depth), and the Model 50 Modular (40" chamber length) which is used in conjunction with either the Model 100H or 200H. There are many delicate items such as fiberoptics, ophthalmological instruments, and articles made of plastic that can be sterilized without damage.

General Surgical

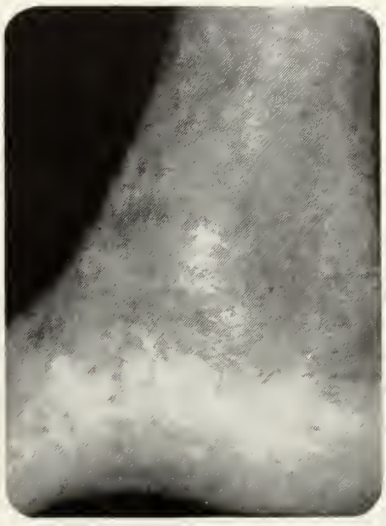
A Division of
GENTEC
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1630 Sixth Avenue South, Birmingham, Alabama 35233
Telephone 251-4176

Eczema of many years... controlled in two weeks



Before treatment



After treatment—
with ARISTOCORT Topical Ointment 0.1% for two weeks

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

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Aristocort® Topical Ointment 0.1% and Cream 0.1%, 0.5%
Triamcinolone Acetonide
Also available in foam form.

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406-6





The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The American Medical Association urged that Congress precisely define "public health services" to prevent the so-called "Partnership in Health" legislation being used as authority for unlimited expansion of government medicine.

In a letter to Chairman Lister Hill (D.-Ala.) of the Senate Committee on Labor and Public Welfare, Dr. F. J. L. Blasingame, executive vice president of the AMA, said:

"We are especially concerned with a lack of definition with respect to comprehensive public health services. Neither 'comprehensive' nor 'public health services' is defined in the law or the bill. While we recognize there is supportable advantage in removing strict categorization of grant funds, we are concerned that the categorical identification having been removed, there will no longer be any limitation on the health care which may be provided. Indeed, from testimony on this legislation by government officials, it would appear that our concern is justified. Is it the intent that the Congress is authorizing a program of **individual treatment** for **unidentified patients** for **unspecified conditions** for **unlimited services?** It is clear that the lack of definition of 'public health services' is, in effect, an invitation from Congress to unlimited expansion of 'public health' beyond its traditional role in the community.

"The AMA has supported, and continues to

support the furnishing of public health services. We have also supported flexibility of operation within the state and local health departments as an effective tool for community health. We feel, however, that the distinction between the public and private health sectors should be delineated . . . in more positive terms than the mere prohibition against interference with the existing patterns of private professional practice . . . Accordingly, the Association finds itself unable to support this portion of the legislation providing for an undefined program of comprehensive public health services."

The AMA also opposed a provision for federal licensure of clinical laboratories on the ground that licensing of such facilities traditionally has been a state matter.

"We believe that federal licensure of these facilities would establish an undesirable precedent," Dr. Blasingame said.

* * *

The controversy over generic vs. brand name drugs was aired at hearings of the Senate Finance Committee and the Senate Small Business Monopoly Subcommittee.

Chairman Russell B. Long (D., La.) of the Finance Committee planned to offer an amendment to the Social Security bill, which includes medicare and medicaid changes, to put the emphasis on generic drugs in government medical programs. The monopoly subcommittee, headed by Sen. Gaylord Nelson (D., Wis.), was investigating drug pricing policies with the same objective as Long's proposal.

Long's proposal included the creation of a federal panel to select the highest quality but lowest cost prescription drugs for which patients would be reimbursed under government medical programs.

Both the Food and Drug Administration and the drug industry opposed establishment of such a committee and national formulary of drugs.

FDA Commissioner James Goddard, M. D., said it would result in "an encroachment on the practice of medicine in such a way that I believe the physicians of this country would rise up in wrath." He also said:

"In essence the bill would impose upon the formulary committee the duty of evaluating every prescription drug used in medical practice today—more than 5,000—and of providing a formulary of the drugs of choice. I would have to exclude drugs deemed unnecessary, therapeutically duplicative, or of unacceptable quality. The enormity of such a task should be borne in mind."

C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association, joined Goddard and John W. Gardner, Secretary of Health, Education and Welfare, in urging that action on the matter be postponed until a report is made on a special study being conducted by HEW. The report is due Dec. 1.

Stetler said the drug industry recognizes the government's responsibility to control federal expenditure in its drug purchase programs. But, he said, Long's proposal would put such a low ceiling on drug prices that it would "jeopardize the ability of quality, research-oriented pharmaceutical companies to perform effectively."

"The health of all of us and of future generations is dependent on the continued growth and vitality of a progressive and successful pharmaceutical industry," he said.

* * *

No other national health problem has been so seriously neglected as alcoholism, according to John W. Gardner, Secretary of Health, Education and Welfare.

"The atmosphere of moral disapproval surrounding the entire subject, and the deplorable custom of treating alcoholics as sinners or criminals have obscured the nature of the problem," Gardner said in connection with a report issued by the National Institute of Mental Health.

(Continued on Page 599)

From a continuing study on nasal congestion . . .



timed to work while your patient does

A study being conducted by the Department of Otolaryngology, Greater Baltimore Medical Center is stockpiling evidence that points to the fast action and prolonged relief effected by Triaminic in the treatment of nasal congestion.

Begun in March 1966, the study to date has encompassed 85 patients with common nasal disorders—and measured their response to recommended doses of Triaminic tablets.

Timed to release its oral nasal decongestant and two antihistamines within 8 hours, Triaminic was found to effect partial or complete relief in better than 82% of the subjects treated. Clearing nasal obstruction. Reducing turbinate swelling. Making breathing easier.

It's a comforting thing to know that Triaminic *really* works.

Triaminic® *timed-release tablets*

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride 50mg. Pyrilamine maleate 25mg. Pheniramine maleate 25mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets.

Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

DORSEY LABORATORIES • *a division of The Wander Company* • **LINCOLN, NEBRASKA 68501**

(Continued from Page 597)

The NIMH report, titled "Alcohol and Alcoholism," reviews present knowledge of alcohol, the nature and extent of drinking problems; the identification, treatment and prevention of alcoholism, and the status of current research.

Although alcoholism obviously does not occur without alcohol, the report states that "alcohol can no more be considered the sole cause of alcoholism than marriage can be considered the sole cause of divorce, or the tubercle bacillus the sole cause of tuberculosis."

On the treatment af alcoholism, the report says:

"In the past, alcoholics have been admonished, scolded, denounced, jailed, beaten, ducked, lashed, and threatened with eternal damnation. There is no evidence that any of these measures has had significant therapeutic value for more than an occasional alcoholic. Available evidence seems to demonstrate that long-lasting results can be achieved primarily by a technique known generally as psychotherapy."

* * *

The federal government is planning on increasing the monthly medicare insurance rate for physicians' services for next year and 1969.

The present rate is $3 a month. The medicare law designated Oct. 1 as the deadline for setting the rate for 1968 and 1969 but Congress approved legislation postponing the announcement until Dec. 31.

John W. Gardner, Secretary of Health, Education and Welfare, disclosed a possible increase from $3 to $4 in a letter to Sen. John J. Williams, Del., ranking GOP member of the Senate Finance Committee.

The monthly premium is paid by persons 65 and older who elected to get benefits under Part B of the medicare program providing physician services.

"I would promulgate a rate of $3.80 for the two-year period of 1968 and 1969, 25 cents of the increase being based upon our evaluation of the extent to which we believe the premium rate was below the actual cost for 1966-67 and 55 cents being the estimated additional cost to be expected from an estimated increase in utilization and in physicians' fees," Gardner said.

Best Manuscript Contest

A competition for a $300 award for the best manuscript submitted by a medical student, intern or resident on any subject pertinent to and concerning occupational health has been announced by the Central States Society of Industrial Medicine and Surgery. The contest closes at midnight on December 31, 1967.

A second competition, open only to residents in occupational medicine, is announced by the Industrial Medical Association. The award, consisting of an embossed scroll, will be presented at the Association's annual meeting to the author or authors of a paper published in the open literature on a subject germane to occupational medicine which is judged to be the most outstanding of those submitted. Reprints entered in the competition must be published before December 31, 1967, and submitted no later than January 15, 1968.

Both contests will be judged by members of the Committee on Merit in Authorship of the Industrial Medical Association. The criteria will be largely based on clarity, validity, objectivity, originality and style. Complete contest rules may be obtained from the Industrial Medical Association, 55 East Washington St., Chicago, Ill. 60602.

New National Charity Formed to Fight Epilepsy

Intensive merger negotiations lasting almost four years have finally resulted in the formation of a major new national voluntary health organization: Epilepsy Foundation of America (E. F. A.).

Announcement was made on September 23 by Neal Gilliatt, Chairman of the Board of Interpublic, Inc., and newly-named President of E. F. A., after a meeting of the executive committee of the new organization in New York City. Mr. Gilliatt said that the new organization will receive the benefit of the medical thinking of the most distinguished neurologists in the country.

The agency's national headquarters will be in Washington, D. C. An office in New York City will also be maintained by the national headquarters.

The merger became a reality when Epilepsy Association of America and The Epilepsy Foundation—the two national organizations concerned with epilepsy—were able to resolve a number of policy questions that had plagued previous efforts to form a single, strong, national lay organization.

In a strong statement of support, President Johnson has hailed the formation of the new agency. Pledging his administration's "sustained interest and cooperation," Mr. Johnson called the merger "a milestone in a major health field."

Mr. Gilliatt said that Harold Babbitt, President of The Epilepsy Foundation, and Howard R. Koven, President of Epilepsy Association of America, were named Co-Chairmen of the Board of the new organization. Dr. A. B. Baker, Mrs. Fred S. Markham and Mrs. Albert M. Grass were elected Senior Vice Presidents. Other officers are: F. Arnold Daum, Paul E. Funk, Robert M. Green, Merritt D. Hill, Henry Lewis III, Mrs. Edward McSweeney, Richard A. R. Pinkham, Gerard Thompson, Mrs. Myron Weil and John W. West.

Mr. Gilliatt said that the new organization would combine the resources of the two previously existing national agencies—each with a network of chapters across the country—and "would bring tremendous new strength to the voluntary battle against a disorder that afflicts more than 2,000,000 Americans." He stressed that the existing chapters of both organizations would continue as chapters of the new organization.

Voting members of the merging groups will make up a large part of the new board, according to Mr. Gilliatt, but additional board members will be drawn from among persons who have never been associated with either group.

Doctor A. B. Baker, who was chairman of the Medical Advisory Board of The Epilepsy Foundation said that plans are underway for "a nationwide action program that will end epilepsy's status as America's single most-neglected health problem."

Dr. Baker said that epilepsy patients are presently faced with medical, social, educational, psychological, economic and legal problems that have cost the nation hundreds of millions of dollars and "robbed practically every epilepsy patient in this country of his dignity and self-respect." Dr. Baker expressed confidence that the medical community would join wholeheartedly in a massive effort to being epilepsy to the nation's attention.

Mr. Gilliatt said that the goal of Epilepsy Foundation of America would be nothing less than "total victory over a disorder that has been scandalously ignored for centuries. The time has come," he added, "when Americans can no longer afford to be indifferent to a problem that affects such a large part of our population."



CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.)
(Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

A. H. ROBINS COMPANY,
RICHMOND, VA. 23220

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Help clear up that miserable stuffed-up feeling with Dimetapp. Each hard-working Extentab brings welcome relief from the stuffiness, drip and congestion of upper respiratory conditions for up to 10-12 hours. Yet, patients seldom experience drowsiness or overstimulation. The key to success is the Dimetapp formula: Dimetane (brompheniramine maleate)—along with phenylephrine and phenylpropanolamine, two time-tested decongestants. They get the job done... in a hurry.

Indications: Dimetapp is indicated for symptomatic relief of the allergic manifestations of respiratory illnesses, such as the common cold and bronchial asthma, seasonal allergies, sinusitis, rhinitis, conjunctivitis, and otitis.
Contraindications: Hypersensitivity to antihistamines. Not recommended for use during pregnancy.
Precautions: Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.
Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia, have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.
Dosage: 1 Extentab morning and evening.
Supplied: Bottles of 100 and 500.

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in sinusitis, colds, U.R.I.

Dimetapp® Extentabs®

(brompheniramine maleate], 12 mg.; [illegible] 15 mg.; phenylpropanolamine HCl, 15 mg.)

up to 10-12 hours clear breathing on one tablet



"Hotelevision" Adds New Dimension to AMA Convention

Keeping abreast of scientific and other activities and reaching those sometimes-difficult decisions as to which exhibits or other Convention programs to concentrate upon will be greatly simplified for the approximately 2,800 physicians who will attend the 21st Clinical Convention in Houston November 26-29.

The "great simplifier" is "Hotelevision," a closed-circuit television system which will feature approximately 40 hours of diverse programming on Convention activities.

From their rooms in major hotels and motels, physicians, their families and others attending the Convention can watch the daily telecasts on a specially designated channel during "off" Convention hours—7 to 9 a. m. and 5 p. m. to 12:30 a. m.

"Hotelevision," tried on an experimental basis by the AMA at the Annual Convention in Atlantic City last June, adds a refreshing, new dimension to Convention communications coverage.

It has been included as a permanent part of Annual and Clinical Convention programming as the result of highly favorable response in a random survey conducted among 1,500 physicians who pre-registered to attend the Annual Convention.

Although little advance publicity was given to the "Hotelevision" programming, 43 per cent of the physicians participating in the survey stated that they watched at least one program on one of 11,000 sets receiving the special Convention programming in 67 major hotels and motels along the Boardwalk. This percentage was considered high since a significant number of the physicians in the test group did not stay in one of these hotels or motels or attended the Convention for only a single day.

The overwhelmingly favorable aspect of the survey, however, was that more than 90 per cent of those who tuned in on the "Hotelevision" channel liked the programming and considered it a valuable addition to the Convention. The "average" viewer tuned in on three of the five Convention days.

While "Hotelevision" is not a new innovation, the AMA version is considered unique since subject matter must appeal to an audience of diverse interests, rather than to one having a single interest.

Functioning somewhat as a "*Daily Bulletin* of the air," the closed-circuit television schedule, featuring about 70 separate shows, is designed to complement or emphasize Convention activities. It is not intended to compete with them.

Scheduled along with programs highlighting scientific and other Convention activities, local, national and world news, cultural and other attractions in the host city are a variety of educational and entertaining shows dealing with topics of particular interest to physicians.

One of the most popular programs at Atlantic City was "Open End," a panel show following the 10 o'clock edition of the news. Viewers capitalized on the opportunity to telephone questions to panel members, who included members of AMA councils and headquarters staff and deans of medical schools. There were panels on medical education, legislation and research.

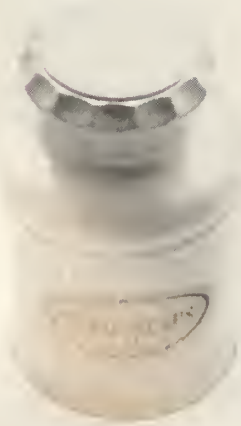
Another popular show was "Medical Bowl," a quiz show in which physicians representing four sections of the country competed. Questions tested knowledge of government legislation, including Medicare, in particular.

(Continued on Page 605)



in chronic illness

B and C vitamins are part of therapy: An imbalance of water-soluble vitamins and chronic illness often go hand in hand. STRESSCAPS capsules, containing therapeutic quantities of vitamins B and C, are formulated to meet the increased metabolic demands of patients with physiologic stress. In chronic illness, as with many stress conditions, STRESSCAPS vitamins are therapy.



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:

Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

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"HOTELEVISION"

(Continued from Page 603)

The American Academy of General Practice found six of the shows so entertaining and informative from the standpoint of their members that they included the videotapes in their television programming at the AAGP convention in Dallas in September.

Richard M. DuMont, director of the AMA's Department of the AMA's Radio, Television & Motion Pictures, said the same type show format followed at Atlantic City would be repeated at Houston.

The AMA's "Hotelevision" programming is sponsored by pharmaceutical houses, who purchase commercial time in 32-minute packages. This is a new facet of AMA Convention marketing for pharmaceutical houses, augmenting their exhibit, *Daily Bulletin* and other Convention-oriented advertising.

Medical Aspects of Sports Conference

The team physician and the practitioner who has athletes among his patients should find many topics of interest at the 9th National Conference on the Medical Aspects of Sports in Houston, Texas, Sunday, Nov. 26.

Clinical problems in athletics, sports cardiology, knee injuries, the 1968 Olympics at Mexico City, and specialized sports will be topics of forums and discussions.

Morning, afternoon, and evening sessions will be at the Hotel America. Sponsored by the American Medical Association's Committee on the Medical Aspects of Sports, the annual conference is held in conjunction with the AMA's 21st annual Clinical Convention, Nov. 26-29 in Houston.

Speakers will include physicians experienced in sports medicine and other widely recognized sports authorities. Those attending will have opportunities after each session to discuss special problems with the speakers.

Featured speaker at the conference luncheon will be Eduardo Hay, M. D., of Mexico City, director general of the Centro Deportivo Olimpico Mexicano, who will discuss preparations for the 1968 Olympic Games.

A session later in the day will discuss the U. S. Olympic athlete. Speakers will include the U. S. Olympic team physician, Daniel F. Hanley, M. D., of Brunswick, Maine; the U. S. Olympic vice president Merritt H. Stiles, M. D., of Spokane, Wash., and the executive secretary of the National Athletic Trainers Association, William E. Newell, R. P. T., Lafayette, Ind.

Some program highlights:

The problem of gastroenteritis is both significant and perplexing to athletes who need to be in top shape daily, at home and on the road. Clayton L. Thomas, M. D., of Wilbraham, Mass., member of the U. S. Olympic Committee's Medical and Trainers Services Committee, will discuss measures that can be taken to minimize this threat.

The relationship of cardiac problems to athletic participation will be discussed by Kenneth D. Rose, M. D., director of research at the University of Nebraska Health Service, Lincoln. Dr. Rose has done research in medical telemetry, and will discuss how the heart actually responds during exercise, as disclosed by telemetric readings.

Nutrition's role in enabling maximum physical performance will be the topic of the Army's authority on the subject, C. Frank Consolazio, head of the Bioenergetics Division of the Army's medical research and nutrition laboratories at Denver.

"Foolishness and Folklore in Sports" will be the topic of Fred L. Allman, Jr., M. D., of Atlanta, president of the Amercian College

of Sports Medicine and orthopedic consultant for University of Georgia varsity teams.

Joining Dr. Allman in a forum on Quackery in Sports will be William M. Fowler, Jr., M. D., of Los Angeles, who will discuss the reasons for condemning use of various drugs known to be used by some healthy athletes.

The physician to whom many give credit for converting "weight lifting" to "weight training" as a beneficial program for physical education and rehabilitation and for preventing athletic injuries will outline his training principles. Thomas L. DeLorme, M. D., Boston, Mass., will be a participant in one of two forums on clinical problems in athletics.

Richard C. Schneider, M. D., neurosurgical consultant to the University of Michigan athletic department, Ann Arbor, will discuss the medical considerations of returning an athlete to competition following a concussion.

Other speakers in the forums on clinical problems will be Frank L. Raney, Jr., M. D., of San Francisco, who will speak on rib injuries; Robert E. Anderson, M. D., of Ann Arbor, Mich., who will report his findings on genito-urinary injuries, as related to sports participation; and Donald J. Erickson, M. D., of the Mayo Clinic, Rochester, Minn. Dr. Erickson will discuss the practicality and proper use of various injury-treatment devices in the athletic setting.

Three afternoon discussion sessions will be on the Olympics and the American Athlete, Specialized Sports (sports parachuting, equestrian sports, and sports judo), and Sports Cardiology.

An evening forum will discuss prevention of knee injuries in sports. Participants will include H. Royer Collins, M. D., of Temple, Texas; Jay A. Bender, Ph. D., of Cortland, N. Y., and Joe W. King, M. D., of Houston.

The conference is open to interested physicians and key non-medical athletic personnel.

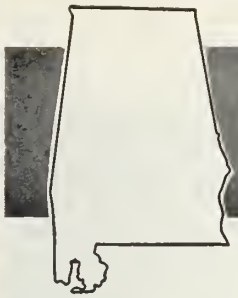
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around the state

Dr. Clarence Salter Honored for 56 Years' Service to Talladega County







On October 12 the Chamber of Commerce and citizens of Talladega honored Dr. Clarence L. Salter for his fifty-six years of service to his community and to the Medical Profession. Shown, left to right, are Dr. Salter, Mr. A. M. Hocutt, Jr., President of the Talladega Chamber of Commerce; Dr. James L. Hardwick, Mayor of Talladega. MASA President Dr. E. Bryce Robinson extended greetings on behalf of all the Alabama physicians to Dr. Salter. Mrs. and Dr. C. L. Salter. Dr. J. Garber Galbraith of the University of Alabama gave the principal address for the evening.



A part of the 500 plus Talladegians that gathered at the high school auditorium to honor Dr. Salter.



Dr. Allen C. Jacobs, President, Presbyterian Home for Children presented a gift—a bound book of letters from Dr. Salter's patients.

Interspecialty Council of MASA Organizes



Dr. Grover C. Murchison, Montgomery, President of the Alabama Chapter American Academy of General Practice was unanimously elected first chairman of MASA's new Interspecialty Council. The purpose of the meeting was to inform the representatives of the 14 medical specialty groups of the services available at the central office. Shown, left to right, Dr. Murchison; Dr. S. J. Selikoff, Montgomery, Alabama Thoracic Society; Dr. Edmund A. Dowling, Birmingham, AAP; Dr. David D. Dunn, Montgomery, Ob and Gyn; Dr. Walker Reynolds, Anniston, ACS; and Dr. John F. Wade, Montgomery, Alabama Society of Internal Medicine.

Nominates TB Officers



Dr. S. J. Williams, Livingston, gave the nominating committee's report for new officers at the 53rd Annual Meeting of the Alabama Tuberculosis Association. Dr. Williams also represents the fifth district on MASA's Board of Trustees.

Parley at County Society



Montgomery Doctors Robert Parker and Otto Burton caught in an informal pose at the October County Medical Society meeting.

Association Joins Fight Against Bootleg Whiskey



Mr. John F. Corbin, Jr.



Lt. Gen. Walter E. Todd

Mr. John F. Corbin, Jr., Supervisor in charge, Alcohol and Tax Division (ATU), U. S. Treasury Department and Lt. Gen. Walter E. Todd (USAF-Ret.), State ABC Board Administrator met with the Board of Censors, branding moonshine as a "serious health hazard" and warning all the people that "moonshine kills." The Board has issued a statement warning all Alabamians that they endanger their health by drinking moonshine liquor.

Equipment Available



Display of Audio-Visual Equipment available to specialty groups . . . movie screen, tape recorder, slide projector and slide trays, pointer, timer, convention typewriter, carrier voice that operates either by battery or plug, and camera. Other equipment on order, 16 mm sound movie projector.

Sports Committee Meets



The Committee on the Medical Aspects of Sports met October 8 in Birmingham to discuss arrangements to appear on next year's AEA program and establishing a standard state-wide insurance coverage program for high school athletics. Serving on the committee, left to right, Doctors E. F. Porch, Arab, Chairman; M. Parker, Montgomery; B. L. Landers, Jr., Birmingham, and J. S. Hamilton, Decatur. Mr. Herman Scott, Executive Secretary of the Alabama High School Association, met with the committee.

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Administrative—

Age 40; University of Nebraska 1966; Available immediately. LW-114

Age 70; seeking parttime position in Montgomery area. Available immediately. LW-115

Anesthesiology—

Age 43; New York Medical College 1955; Certified American Board; National Board. LW-116

General Practice—

Age 34; University of Tennessee 1958; seeking solo, group, industrial, or associate practice. Available immediately. LW-117

Age 63; Northwestern University 1933; interested in general practice and psychiatry, solo, industrial, institutional, or research and teaching. Available immediately. LW-118

Age 28; Medical College of Alabama 1967; prefers associate practice in town of 10,000 population or less to fulfill scholarship requirements. Available July 1968. LW-119

Age 40; Faculty of Medicine, Lille, France, 1957; seeking solo, group, industrial, or associate practice. Available immediately. LW-120

Age 30; University of Tennessee 1965; seeking group or associate practice. Available immediately LW-121

Age 43; Medical College of Alabama 1967; seeking associate practice in town of 12,000 plus population in central or south Alabama. LW-122

Age 46; Hahnemann Medical College 1946; interested in location for associate or industrial practice (general practice and surgery). Available January 1968. LW-123

Age 50; Tulane University Medical College 1942; seeking solo, group, industrial, associate, or institutional practice. Available immediately. LW-124

Age 28; University of Missouri 1965; seeking group or associate practice. Available July 1968. LW-125

Age 28; Baylor University College of Medicine 1965; seeking group, associate, industrial, institutional, or aviation medicine practice. Available November 1967. LW-126

Internal Medicine—

Age 30; Southwestern Medical School 1964; seeking group, associate or institutional practice. Available July 1968. LW-127

Age 38; Boston University 1955; Board eligible; seeking group or industrial practice. Available immediately. LW-128

Age 30; Ohio State University 1963; Board eligible; seeking group, associate, or institutional practice. Available July 1968. LW-129

Age 49; Stanford University 1945; Certified American Board; seeking industrial, institutional or other position. Available immediately. LW-130

Obstetrics-Gynecology—

Age 30; University of Tennessee 1962; Board eligible; seeking solo, group, or associate practice. Available July 1968. LW-131

Age 30; University of Tennessee 1962; Board eligible; seeking group or associate. Available August 1968. LW-132

Age 29; University of Tennessee 1962; National Board; seeking group or associate. Available June 1968. LW-133

Ophthalmology—

Age 32; Emory University 1961; Board eligible; seeking associate practice. Available January 1969. LW-134

Psychiatry—

Age 43; University of Western Ontario 1957; Board eligible; National Board; seeking group practice. Available immediately. LW-135

Surgery—

Age 31; Northwestern University 1961; Board eligible; seeking group or associate. Available July 1968. LW-136

Age 54; New York University 1945; Certified American Board; National Board; seeking group, associate, academic or administrative position. Available probably June 1968. LW-137

Student Health—

Age 53; Tufts Medical School 1940; National Board; seeking industrial or institutional position. Available immediately. LW-138

Age 38; University of Toronto 1959; National Board; Available immediately. LW-139

Age 40; Medical College of South Carolina 1955; Available immediately. LW-140

Physicians Wanted

General Practitioner-Surgeon—

For two towns with combined population of approximately 5,000 in West Alabama. Seeking one or more physicians; possibility of four additional physicians needed in the county. Hospital is located in each town and plans are underway for expansion of facilities. Office space available. Nearest city with 50,000 population is 30 miles. PW-73

General Practitioner-Obstetrician—

Opportunity for physician in city of 15,000-20,000 population located in Southeast Alabama in college town. Interest in surgery is also desirable. PW-74

General Practitioner or Internist—

For partnership or associate practice. Excellent location, fully equipped office in city of 12,000 population. 130-bed accredited hospital. Possibility for larger clinic group. PW-75

Surgeon—

Board qualified or Board certified surgeon for partnership in 1968 in city of approximately 40,000 population. PW-76

Wanted for practice leading to partnership in clinic located in city of 10,000 population in area of 30,000 population in Northwest Alabama. Starting salary of $20,000-$30,000 depending on experience and training. 75-bed accredited hospital. PW-77

Student Health—

New 75-bed facility to be occupied in late 1968. Present staff of seven full time physicians. Seeking one additional physician for fall 1967 and two (one as a replacement) for fall 1968. Salary negotiable. Appointments are full time with regular University benefits. PW-78

Full time salaried position of assistant director on staff of four. 65-bed well equipped infirmary with adequate office space. Excellent laboratory and x-ray facilities. Liberal fringe benefits. PW-79

General Practitioners—

Opportunity in town of approximately 2,000 population located in Northwest Alabama in trade area of 15,000 population. Spacious clinic building available rent free. Possibility for industrial position. Two hospitals with 170 beds located in adjoining city. PW-80

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. Hospital and nursing home in the city. PW-81

For town of 2,000 population in trade area of 5,000 located in south Alabama, within 24 miles of large city of 37,000 population. Nearest hospital (50 beds) is 12 miles away. One physician presently in practice in town. Office space available. Military base, farming, and small industries afford resources. Numerous civic clubs; two schools and five churches. PW-82

For associate practice in town of 10,000 population, located in Southeast Alabama. PW-83

Needed for town of approximately 1,500 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-84

For partnership practice in clinic in town of 2,000 population in area of 10,000 population located in north-central Alabama. 40-bed hospital. PW-85

For assistant or associate in clinic located in town of 10,000 population located in northeast Alabama. 65-bed Hill-Burton hospital. PW-86

Opportunity in city of 25,000 population located in Southeast Alabama within less than 100 miles of the Gulf Coast. Offices available in a medical center complex adjacent to large hospital. PW-87

For town in Southwest Alabama, approximate 1,000 population, in trade area of approximately 5,000 population, within 60 miles of large city of 35,000. Nearest hospital is located 18 miles away. Arrangements available for office space. Small industries and agriculture. Civic clubs and golf course nearby. Churches and school. PW-88

For town in South Alabama with 20,000 trade area, within 40 miles of Gulf beaches and large city. Excellent hunting and fishing. Numerous industries offering stable employment for area. Furnished office available rent free. Hospital presently engaged in complete remodeling and expansion. Excellent cooperation between hospital and medical staff. PW-89

For town of approximately 1,000 population in population center of 10,000, located in Southwest Alabama within 90 miles of the Gulf Coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-90

For group practice in town of 10,000 population in North Alabama. PW-91



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Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal is indicated for prompt and moderately long-acting hypnosis. It is not suitable for continuous daytime sedation.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.



Dosage: 50-200 mg. (¾-3 grains) at bedtime.

[031767]

Additional information available to physicians upon request.
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Vital Statistics

NEW MEMBERS

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Bradley, John Durwood, Jr., 700 South 19th St., Birmingham, Ala. 35233

Brown, Andrew Marion, 1029 S. 22nd St., Birmingham, Ala. 35205

Fawal, Isa Aziv, 7714-2nd Ave., S., Birmingham, Ala. 35206

Gantt, James Stewart, 900 South 19th St., Birmingham, Ala. 35205

Garber, Jacob Hoffman, 1018 S. 17th St., Birmingham, Ala. 35205.

Phillips, Robert Dean, U. S. Steel Corporation, Fairfield Works, Fairfield, Ala. 35064

Scarano, Victor Richard, 1919-7th Ave., S., Birmingham, Ala. 35233

Whitehurst, Walter Raleigh, 909 South 18th St., Birmingham, Ala. 35205

Madison County

Martinec, Leonard Wayne, 930 Franklin St., Suite 107, Huntsville, Ala. 35801

Mobile County

McKee, Wilbur Eilers, Dismukes Shopping Center, P. O. Box 305, Satsuma, Ala. 36572

Tallapoosa County

Shields, James, Russell Hospital, Alexander City, Ala. 35010

CHANGES OF ADDRESS

Baldwin County

Davis, David W., Jr., present Bay Minette, Ala. 36507, to 301 Hand Avenue, P. O. Box 818, Bay Minette, Ala. 36507

Cullman County

es, James G., present Cullman, Ala. 35055, Box 517, Cullman, Ala. 35055

Etowah County

Adrian A., present Gadsden, Ala., lege St., Gadsden, Ala. 35901

Jefferson County

Crabtree, James C., Jr., present Woodward, Ala. 35189, to 4212 Ave. V. (G&H), Birmingham, Ala. 35208

Fargason, Crayton C., Jr., present Birmingham, Ala. 35205, to P. O. Box 2603, Birmingham, Ala. 35202

Minear, Ralph E., Jr., present Birmingham, Ala. 35233, to 203 Park Drive, Apt. No. 43, Boston, Massachusetts 02215

Strong, J. B., Jr., present Birmingham, Ala. to Medical Laboratory Associates, 1025 South 18th St., Birmingham, Ala. 35205

Lauderdale County

Cantrell, William C., present Florence, Ala. 35630, to 17-23rd Ave. N. W., Birmingham, Ala. 35215

Madison County

Kiger, Robert G., present Redstone Arsenal, Ala. 35808, to 1035 Balmoral Dr., Nashville, Tenn. 37220

Kinzer, Gilbert M., present Huntsville, Ala. 35801, to 1106 Wright Dr., Huntsville, Ala. 35802

Mobile County

Coats, William P., present Chickasaw, Ala. 36611, to 5220 Overlook Rd., Mobile, Ala. 36618

Eubanks, James R., Jr., present Mobile, Ala. 36604, to 1604 Center St., Mobile, Ala. 36604

Kimbrough, Benjamin B., present Prichard, Ala. 36610, to 362 N. Craft Hwy., Chickasaw, Ala. 36611

Pringle, B. Clifford, present Mobile, Ala. 36608, to 2200 Knollwood Dr., Mobile, Ala. 36619

Shriner, John F., present, Mobile, Ala. 36607, to 3920 Airport Blvd., Mobile, Ala. 36608

Wiseman, Hollis J., present Mobile, Ala. 36608, to Mobile General Hospital, Fillingim St., Mobile, Ala. 36617

Montgomery County

Barnes, J. M., present Montgomery, Ala. 36106, to 125 South Ripley St., Montgomery, Ala. 36104

Branch, John L., present Montgomery, Ala. 36104, to 125 South Ripley St., Montgomery, Ala. 36104

Dawson, Harris P., present Montgomery, Ala. 36104, to 144 Clanton Ave., Montgomery, Ala. 36104

Everest, Paul D., present Montgomery, Ala. 36104, to 2119 E. South Blvd., Montgomery, Ala. 36111

Lawrence, Ralph L., present Montgomery, Ala. 36104, to 3524 Lebron Court, Montgomery, Ala. 36111

Parker, Mervel V., present Montgomery, Ala. 36104, to 2119 E. South Blvd., Montgomery, Ala. 36111

Tuscaloosa County

Darden, William H., present Northport, Ala. 35401, to Bryce Hospital, Station 3, Tuscaloosa, Ala. 35401

Glenn, Leslie E., present Tuscaloosa, Ala. 35401, to 904 Anna Ave., Tuscaloosa, Ala. 35401

White, Jerre R., present Tuscaloosa, Ala. 35401, to 904 Anna Ave., Tuscaloosa, Ala. 35401

MEMBERS TRANSFERRED

Mobile County

Bedsole, Donald Oliver, present Fairfield, Ala. 35064, to 315 Highway 43 North, P. O. Box 5747, Saraland, Ala. 36571. (Transfer from member Jefferson County to member Mobile County Medical Society.)

Genetics—Key to Medicine of the Future

One day soon man will complete the task of unscrambling the "code of life"—the complex molecular tape recording that makes him the way he is.

But man's inquisitiveness will not stop there. With the code as a guide he will go on to stir into self-reproducing vitality the dead chemicals stocked on a laboratory shelf. And from this knowledge, in turn, may come the ability to produce new organisms unlike any that have ever existed.

In short, man seems destined some day to become a creator of what to him is the most important thing on earth—life.

There are those who say this is going too far; that man in such a role would be playing God.

There is worry on another score in the minds of many scientists. It is possible, they point out, that experiments with the life processes may engender something more dangerous to the human race than the hydrogen bomb.

Such a point of view is no longer considered extreme. The potential dangers to humanity seem real enough. But there is another consideration. For there are also human benefits to be derived from producing life in a test tube.

As other eminent men of science have explained: "By using the brains which God has given us we can perhaps look forward to eliminating diseases and disorders such as cancer, diabetes, atherosclerosis, rheumatoid arthritis and congenital malformations."

All these, and many others, are traceable

A Science feature article prepared by the Communications Division, American Medical Association.

in one way or another to disruptions in the molecular code that in turn disrupt the infinitesimal pulsations responsible for the life in our bodies. So, if we are to correct such defects, it becomes necessary that we better understand both the code and its mode of formulating and controlling life.

Actually, the study of fundamental life processes did not start out as a potential cure for anything. Those who pioneered the way were more interested in some other age-old questions man has been asking himself—questions such as: "Where did I come from? Why am I me? Why am I so like all other people and yet such a complete individual?"

The science evolved to supply answers to these paradoxes is genetics—the study of heredity. But since heredity springs from the cell, it is a study which has led inquiring minds into the minute recesses of the cell where disease too often has its roots.

Although it was probably some cave man who first made the observation, "like father, like son," genetics itself is a young science. With one notable exception all the important work in this field has taken place in the twentieth century.

The exception was supplied by Gregor Mendel, an Augustinian monk who in 1865 formulated the basic laws of genetics out of experiments with peas grown in a monastery garden at Brunn, Czechoslovakia.

Over an eight-year period of pea growing Mendel established, among other things, that characteristics are passed from parents to progeny by the transfer of distinct "elements."

This was a bold thesis in an era when ideas about the well-springs of life were shrouded in mysticism. Yet it failed to impress scientists of the day. The trouble was that Mendel could not produce any of the hereditary factors he claimed existed. In fact, he didn't even have a name for them.

Not until the early 1900s, 20 years after Mendel's death, were his discoveries confirmed and his elements finally given a name —"genes," after the Greek word meaning "to produce."

Once science had accepted the gene concept, it was soon established that as with peas so with all other forms of multi-cellular life, including man. New life is molded and indelibly stamped by the genes of the parents united at the moment of conception.

In our own species the transfer of genes from parents to offspring is performed by the largest and smallest human cells—the egg and the sperm. While the volume of the egg cell is 85,000 times that of the sperm cell, each contains the same number of genes (estimated at between 30,000 and 100,000). All strung together like beads into strands of various length, called chromosomes, and stored within the cell nucleus.

Despite the number involved, there is nothing haphazard about the stranding of genes. Each occupies an exact position in its chromosome necklace. The significance of this is that it makes possible a gene for gene matching of the egg and sperm chromosomes, without which conception would not occur. Thus the genes from the father which determine eye color are paired with the eye-color genes from the mother; nose genes pair with nose genes, etc.

It is this pairing which accounts for your individuality. Since you are a blend of characteristics inherited from both parents, obviously you can't be exactly like either. This does not preclude similarities, however. Another law of heredity discovered by Mendel is that the genes for a certain trait inherited from one parent may be more dominant than those of the other parent. A child may, for example, "inherit his father's nose" because the father's nose genes were dominant over the mother's. But even so there will be modi-

fications. Probably no two noses. like no two fingerprints, are the same.

Shortly after the pairing of genes in a fertilized egg cell, the chromosomes begin to divide lengthwise, splitting the genes as well. The process has been likened to unzipping a zipper.

Once unzipped, the split chromosomes, each containing half genes, are drawn to opposite sides of the cell—a process made possible by the breakdown of the nucleus wall surrounding the chromosomes. The half genes in the separated chromosomes then construct exact replicas of the half they left behind them, using molecules gleaned from the cell protoplasm, and soon grow into fully reconstituted chromosomes. They even become encapsulated by a new nuclear wall. The result is a cell with two nuclei and two identical sets of chromosomes.

Such a state does not last long, however. By the time double nuclei have developed, the cell itself has started to pinch together in the middle; and soon pinches itself in two. The two halves, each now an individual cell, grow and ultimately further divide.

By this cycle of division and growth, the genes furnished by each of your parents, while carefully retaining their pairing, go on duplicating to produce every cell in your body. In the cells of your liver, your bones, your skin, are the same matched genes which determine the color of your eyes. In other words, while cells may differ due to the manner in which genes express themselves, their genes are all the same both in number and substance.

There is only one exception to this rule. The special cells set aside to become the sperm or egg when the individual reaches sexual maturity, contain only half the normal number of chromosomes. This is brought about by an extra division of the sex cells in which the chromosomes don't unzip and replicate but rather are torn loose from their paired partner. Sex cells, therefore, contain only 23 chromosomes. But all other cells, being offspring of paired chromosomes, wind up with 23 pairs or 46 individual chromosomes.

Thus from two cells—egg and sperm—which combine into one at conception, you grow into a complex being of perhaps 10,000,000,000,000 cells. And even if you weigh 200 pounds now, at the time you were conceived you weighed about 50-billionth of an ounce.

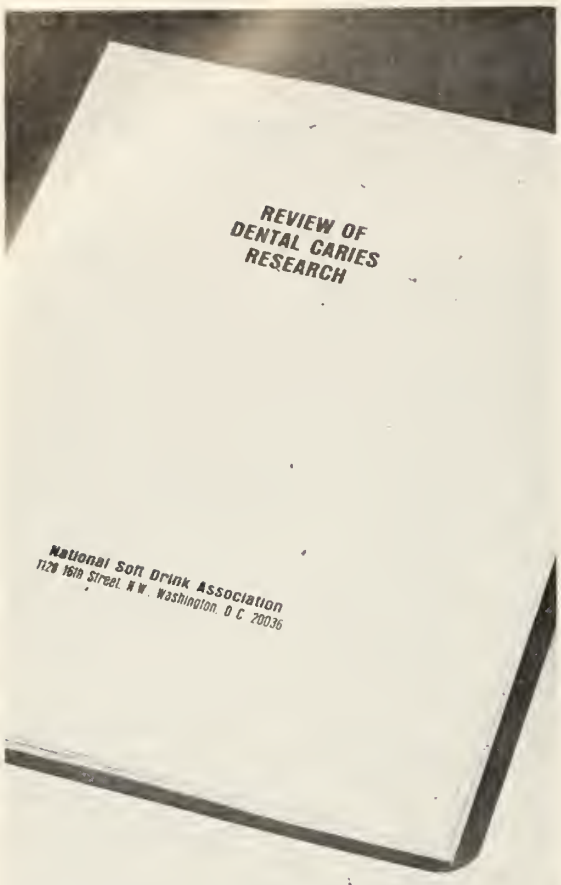
So tiny are the genes responsible for this fantastic growth that all of them contained in the reproductive cells out of which the earth's three billion people have developed could be contained in just one of Mendel's peas.

Almost invariably genes produce faithful copies of themselves. They are passed down generation after generation, century after century virtually unchanged. It may be that some of them have been handed down to us by primitive ancestors who weren't even men. Some indication of this can be seen in the growing human embryo which appears to pass through the whole realm of evolution from one-cell being to man. At various stages in its growth the embryo has a tail like a reptile, gill slits like a fish and various other non-human appearances.

But every once in a great while a gene changes. It no longer produces the exact trait for which it was coded. Instead it produces an altered characteristic, quite different from that of its parents, and this altered trait is passed along to succeeding generations.

These changes in genes, called mutations, may be spontaneous. They also may be caused by outside interference, such as radiation and certain chemicals.

Mutations are usually harmful, producing an unwanted trait that in extreme cases may



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lead to cell death or even the death of the whole organism. Once in a great while, however, a mutation may occur that is beneficial, providing the individual with an advantage that makes him better able to survive.

For example, some place back along the evolutional chain of events a mutation, or more likely a series of mutations, provided man's ancestors with a thumb instead of a less useful toe-like appendage on his hand. With a thumb—with the ability to grasp weapons, manipulate things—it has been said, man conquered the world.

As for the harmful effects of mutations, they are many. Hereditary disorders are seen in all branches of medicine. And as we know more about genetics, many disorders previously not suspected as genetic in type have come to be regarded as such. Peptic ulcers, rickets, leukemia, rheumatoid arthritis, certain kidney diseases and many other afflictions of obscure origin have all been shown to possess a genetic background.

Of equal importance has been the realization that in many cases the genes and environmental factors operate jointly. In tuberculosis, for instance, the bacteria which causes the disease is picked up like an ordinary cold germ. But usually the bacteria causes no effect unless there is a genetic weakness which makes the person susceptible to tuberculosis infection.

For many years, genetics held little for medicine. Its concern was to breed faster horses, fatter hogs, and tastier corn. But in the past ten years, the results of experiments in genetics have opened to medicine a whole new field.

Indeed, genetics has been called the medicine of the future. For when we have the genetic code, when we can exercise control over defective genes, when we finally understand what the life process is all about, then medicine will be able to make it a healthier life.

Human life—the past and the shape of the future—is encoded in every minute cell of our bodies. In these invisible recesses are implanted the patterns of humanity, borrowed from our ancestors and passed along to our offspring.

These patterns are stamped out by a molecule of matter called deoxrybonucleic acid (known as DNA in scientific shorthand). It is the most important chemical substance on earth. It formulates the code of our genes. It is the stuff of life.

DNA is an intricate arrangement of basic elements—mostly carbon like that in coal; hydrogen, the fuel of the sun; oxygen and nitrogen, the main components of air. Whether an organism becomes a tree, a snail or a human being depends upon how the chemical atoms are arranged in its DNA molecules.

In recent years, scientific researchers have devoted more time attempting to unravel the secrets of this molecule than to most any other scientific question. But so complicated is the arrangement of chemicals within DNA that not until 1953, 84 years after it was discovered, was its molecular structure worked out by James Watson and Francis Crick.

This work in turn enabled Marshall W. Nirenberg and J. Heinrich Matthaei to announce in 1961 that they had unscrambled one letter in the DNA code of life. In other words, they had defined one particular chemical arrangement in the molecular code capable of contributing to a living function within a cell.

We live in our cells. We grow through cell multiplication; we are nourished through our blood cells; we think with our brain cells, and transform our thoughts into action through our muscle cells. When something goes wrong with enough of our cells we get sick.

Each cell in our body—and there are trillions of them—is more complicated than a huge industrial plant. In fact, there is a strong resemblance between the two; for it is within the cell that the tools, equipment and material are produced that nourish, regulate and construct other cells.

If a cell is a factory in miniature, then the DNA is its top management. It designs the products, dictates how they shall be manufactured and when delivery shall be made.

How can mere molecules accomplish so much? The answer lies in both their physical structure and chemical composition.

As molecules go, DNA is huge, although it can only be seen with an electron microscope. Viewed in such an instrument is appears as a tiny frayed thread.

This, however, is deceptive. Actually, the molecule is constructed more like a snow chain for an automobile tire—except that in proportion it would be more than four miles long and have as many as 10,000 cross-links.

The side chains of the molecule are composed of sugar and phosphate. The cross-links are formed by pairs of base compounds —either adenine and thymine, or cytosine and guanine. These pairings are always the same, a fact explained by the molecular arrangement of the individual bases. Adenine, for example, will join only with thymine but will refuse to pair with cytosine, guanine or itself. Similarly, cytosine and guanine will bind only with each other.

Herein lies the secret of DNA's extraordinary ability to replicate (as it must when chromosomes divide during cell division) and at the same time keep the genetic information of both the newly constituted cells intact.

What happens is something like this:

The double-stranded DNA molecule, like the chromosome, splits lengthwise, snapping the cross-links where thymine joins adenine and cytosine joins guanine.

After the separate halves of the molecule have been drawn to opposite sides of the cell, along with their chromosomes, the base

compounds at the free ends of the split cross-links pick up their complimentary bases out of the protoplasm of the cell. Thus new cross-links of base pairs are formed exactly like those of the original molecule.

Each of these new bases comes equipped with its own sugar and phosphate groups. So when it is added to the split end of the DNA cross-link, the attached sugar and phosphate incorporate into a new side chain. The result is a complete DNA molecule, indistinguishable from the original one, constructed half out of the old molecule and half out of new components from the cytoplasm.

So much for the structure and replication of DNA. But where is the DNA code?

The code, scientists have found, is spelled out by the four different bases in the cross-links. Since each base, in effect, represents a letter, we wind up with a four letter genetic alphabet—A for adenine, C for cytosine, G for guanine and T for thymine.

The code, therefore, must be read cross-link by cross-link from one end of the DNA chain to the other. And since each cross-link contains two letters represented by its paired bases, it appears that only one side of the molecule is read. There is some evidence, then, that in order to print out its genetic message, the DNA molecule may again have to separate down the middle.

In any event, it has been established that the code is not read out as a single word 10,000 letters long—TACGTCAATGGG, etc. Instead it is read in triplets, three letters—TAC, GTC, AAT, GGG, etc.—making up each genetic word.

But are four letters arranged into three-letter words enough to spell out individual messages for each of the hundreds of thousands of different processes that take place in a human being?

As a matter of fact, they are more than enough. The reason why gets involved with the basic structural material of all organisms —proteins.

Proteins, like DNA, are immense molecules. Each may contain hundreds or even thousands of smaller sub-units known as amino acids.

All human protein is constructed out of only about 20 amino acids. But depending upon how many units of an individual amino acid are used and how these are interspersed with other amino acids, innumerable varieties of protein molecules can be produced.

Since it is possible to make 64 three-letter words out of the four genetic letters, A, C, G and T, it develops that if each triplet in the DNA molecule designates one amino acid, we actually wind up with more possible words in the genetic code than are needed. In some cases, there may be more than one genetic word for a specific amino acid, just as "hat" and "cap" both represent a covering. In other instances, some of the words may serve as punctuation, specifying for instance where to start and where to end the message.

As if all this weren't enough, DNA has another problem—getting its genetic information into use.

Since DNA is the main substance of chromosomes, it is housed in the cell nucleus. Yet most of the processes conducted by the cell occur in the cytoplasm outside the nucleus.

DNA gets around this communications problem by running its own messenger service. More to the point, DNA manufactures its messenger—stamping out a carbon copy chain which bears the same variety in its links as DNA. This messenger is called ribonucleic acid (RNA).

Unlike DNA, RNA is able to pass out of the nucleus into the cytoplasm, carrying the genetic code with it. It wraps itself around another cell molecule, known as ribosome, so that the RNA links become a mold or template by which amino acids are aligned for welding into proteins.

Out of a multitude of proteins are built the

cytoplasm and membranes of other cells and the chemicals which regulate cell functions.

Forming one of the most important classes of proteins are the enzymes. They control virtually all action within the cell and also appear to play a key role in determining what part of the body a cell becomes—a bone, a nerve, a blood vessel, etc.

Since all cells contain the same genetic code, it appears that all cells should be exactly alike. The reason they're not is believed by some scientists to be due to their environment. In other words, soon after a child is conceived there is a change in the environment where cell division is taking place. Some of the cells stop growing into an outer skin-like mantle and instead begin producing internal structures.

It is the enzymes which may be responsible for the changes in the cell environment. Some enzymes pass out of the cell and mix with the nutrients supplied by the mother's blood. When the enzyme level reaches a certain point there is a change in the environment and a different type of cell is produced.

All this is mostly theory at the moment. "We don't even have a vocabulary yet to talk about the chemistry of differentiation," said one scientist. Even so, the problems of enzyme functions and the mechanics of how cells change their form is opening up a whole new field of medical research.

What scientists have made clear so far is this: If there is no code in the DNA for the production of an enzyme, then this enzyme deficiency can produce a body deformity or a diseased organ incapable of carrying out its assigned function.

Within ten years, predicts Dr. Linus Pauling, a Nobel Prize winner and one of the pioneers in genetics, a method will probably be developed to restore a missing enzyme—not an artificial method, like injecting insulin into a diabetic, but a method by which cells are stimulated into the production of a miss-

(Continued on Page 622)



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GENETICS

(Continued from Page 621)

ing enzyme. Thus, there will be permanent cures for some hereditary diseases instead of merely control through long-term care, as in the case of diabetics.

There is not much doubt that some day man will create life in the laboratory, says Dr. Edward L. Tatum of Rockefeller Institute, also a Nobel Prize winner.

But there is more to living and more to the life processes than merely getting some chemicals to combine and form a wiggle in the bottom of a test tube, he pointed out.

"We know that DNA manufactures RNA, and RNA manufactures enzymes, and enzymes organize the cells and protein production. But there is a lot more to living than protein production.

"The possibilities being opened by studies in genetics are exciting. We are now attempting to break down the picture so some day we can put it back together again and perhaps understand this mechanism of living. There is much we don't know yet, but we do know we appear to be heading in the right direction."

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1. DATE OF FILING: October 1, 1967

2. TITLE OF PUBLICATION: THE JOURNAL OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

3. FREQUENCY OF ISSUE: Monthly

4. LOCATION OF KNOWN OFFICE OF PUBLICATION (Street, city, county, state, ZIP code): 19 South Jackson Street Montgomery Montgomery, Alabama 36104

5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers): 19 South Jackson Street, Montgomery, Alabama

6. NAMES AND ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR

PUBLISHER (Name and address): Medical Association of The State of Alabama, Montgomery, Alabama

EDITOR (Name and address): William L. Smith, M. D., 19 South Jackson Street, Montgomery, Alabama 36104

MANAGING EDITOR (Name and address): L. P. Patterson, 19 South Jackson Street, Montgomery, Alabama 36104

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2. MAIL SUBSCRIPTIONS*	2,446	2,492
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Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently. Large doses of Butazolidin alka are contraindicated in glaucoma.

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Precautions: Before prescribing, carefully select patients, avoiding those responsive to routine measures as well as contraindicated patients. Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should not exceed recommended dosage, should be closely supervised and should be warned to discontinue the drug and report immediately if fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage occur. Make regular blood counts. Discontinue the drug immediately and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. Swelling of the ankles or face may be minimized by withholding dietary salt, reduction in dosage or use of diuretics. In elderly patients and in those with hypertension the drug should be discontinued with the appearance of edema. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. The patient should be instructed to take doses immediately before or after meals or with milk to minimize gastric upset. Mild drug rashes frequently subside with reduction of dosage. However, rash accompanied by fever or other systemic reactions usually requires withholding medication. Purpuric rash has also been reported. Agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome, or a generalized allergic reaction similar to serum sickness may occur and require permanent withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

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*Stein, I.D.: Presented at the American Academy of General Practice, Dallas, Sept. 1967.

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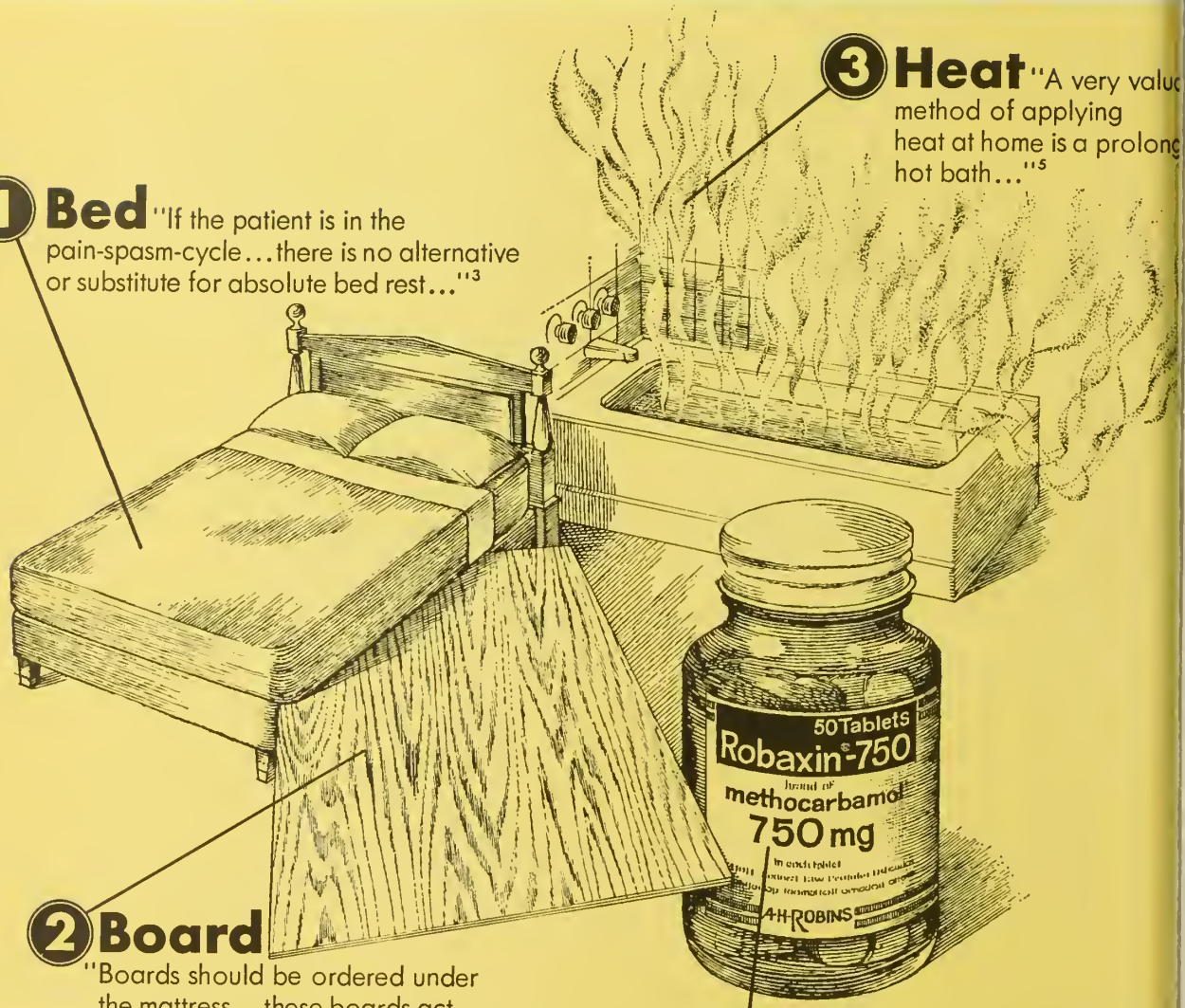
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DILANTIN is supplied in several forms including Kapseals® containing 0.1 Gm. and 0.03 Gm. diphenylhydantoin sodium.

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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • December, 1967 • No. 6

Office of Publication
19 So. Jackson St. Montgomery, Ala. 36104
Subscription Price $5.00 Per Year
$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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Warning: May be habit-forming.

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Dosage: 50-200 mg. (¾-3 grains) at bedtime.

[031767]

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President's Page

WAMASA

A short time ago we had the privilege of attending the meeting of the Northeast District of the Woman's Auxiliary to the Medical Association of the State of Alabama. It was a very gratifying and informative experience. They had excellent attendance.

We were most impressed by their enthusiasm and their dedication to their task in helping us to more completely fulfill our mission as physicians.

It has been said "Behind every successful man stands a good woman." This is doubly true because of the nature of our profession and the life it causes us to live. The attendance at their meeting made me fully realize this more than ever before.

If we work with the same zeal and attitude in our State Association as our wives do at the Auxiliary, then we would have a much more effective Association.

Just to give you an idea of the extent of the interests and activities they have, we would like to give you a partial listing: AMAERF, Community Health, Legislation, Disaster Preparedness, Safety, Rural Health, Health Careers, International Health, Mental Health, Membership, Memorials, Press and Publicity, Program, Radio, Television, Movies, Archives and Exhibits.

All too frequently we do not give them the moral support and the pat on the back that they so richly deserve. Nor do we let them know that we appreciate their work as we should. Therefore, we earnestly request that each county medical society maintain close liaison with their local Woman's Auxiliary Unit. Encourage them and help them—yes, even attend some of their meetings so that you can get a better idea of their work.

Our hats are off to the wonderful ladies of WAMASA! We offer them our hearty congratulations and deep appreciation for their excellent help to us.

By the time you read this, you will have been contacted by WAMASA to donate to one of their main projects—AMAERF (American Medical Association Education and Research Foundation). We urge each of you to respond generously and through WAMASA, as that is the only way they get credit for your contribution. Last year they missed first prize from the National Auxiliary by a nominal sum, so it behooves us to help put them over the top this year. (Incidentally, these contributions are deductible for income tax purposes).

Shortly you will receive a notice about dues for 1968 for your County Society, MASA, AMA and ALAPAC. We cannot stress too much about your maintaining membership not only in your County Society and MASA, but also in AMA and ALAPAC. The latter are voluntary but the returns to you individually and as a member of our profession will be manifold.

* * *

We wish for you and yours a wonderful holiday season and that 1968 will be your best yet!

E. Bryce Robinson, Jr., M. D.,
President, The Medical Association of the State of Alabama

The Woman's Auxiliary

December brings the Christmas Season and the world—or part of it at least—seems to be filled with it.

Each of us, in common with the multitudes all over the civilized world, makes much of Christmas. But amid all the visible evidences of the season, members of the Woman's Auxiliary have taken the time to ask ourselves: Just what does Christmas mean to us?

Christmas is a time for family. Due to the nature of a physician's work the time he can spend with his family is limited. At Christmas these precious hours become more meaningful as they bind hearts closer together and give memories to cherish a lifetime.

Christmas is a time for friends and one of the objects of the Auxiliary is to promote good fellowship among physicians' families. This festive season is the ideal time to renew ties with doctors and their families who are old friends, and to strengthen cords with the new.

Christmas is a time for love. Your wives have expressed their love and concern for our fighting men in Vietnam by filling many hundred Red Cross Ditty Bags to be distributed to them on Christmas Day. They have expressed their love for your profession and the Medical College of Alabama by raising unrestricted funds through the sale of AMA-ERF Christmas Cards.

Christmas is a time of faith and hope. It is well that it comes at this critical time in world events, when peace-loving people need renewed hope and faith in the proclamation given so long ago on those hills in that presently troubled land.

We approach this Christmas Season with a prayer in our hearts that the real meaning of Christmas may invade the hearts and minds of men and women everywhere.

In closing, I would like to share with you a beautiful Christmas thought by Douglas Malloch:



Mrs. James C. Guin, Jr.

This is the joy of giving,
The joy that will joy remain.
The joy that we get from giving,
Not the joy that we get from gain.
A hand that will lift the lowly,
A purse that will meet the need—
These make our Christmas holy,
Make it Christ's day indeed.
This is the Christmas season;
Make it a time of joy
For those who have little reason,
Woman, or babe, or boy.
Friend to the friendless stranger,
Look for some pain to ease.
For Christ that lay in a manger
Was even as one of these.

Most sincerely,

Kay Guin

Mrs. James C. Guin, Jr.
President

If hypothyroidism leaves your patient feeling like this...

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In addition Letter® is distinctively color coded with an identifying number stamped on each tablet to provide accurate dosage control.

Indications: Hypothyroid conditions. **Contraindications:** Thyrotoxicosis, acute myocardial infarctions unless associated with hypothyroidism. In hypothyroidism with hypoadrenalism coadministration of corticoids with LETTER® is recommended. **Precautions and Side Effects:** Excessive dosage may result in diarrhea, cramps, palpitation, nervousness, rapid pulse, sweating. If symptoms appear, discontinue medication for several days, then reinstitute at a lower level. Since myxedema patients with heart disease may suffer seriously from abrupt increases in dosage, caution should be exercised in adjusting dosage. **Dosage:** Generally, the initial adult dosage is 0.1 mg. daily. This may be increased in small increments every one to three weeks until proper metabolic balance is achieved. **Available:** Bottles of 100 tablets, in six potencies: 0.025 mg. (violet), 0.05 mg. (peach), 0.1 mg. (pink), 0.2 mg. (green), 0.3 mg. (yellow), and 0.5 mg. (white).

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Editorial COMMENT

The Editor and Staff
of the

JOURNAL
of the
Medical Association
of the State of
ALABAMA

Nineteen South Jackson Street
Montgomery, Alabama 36104

Extend Holiday Greetings and pray for 1968 Peace - Health - Happiness

For The Year 1968: A Hope And A Promise

Before another issue of this Journal goes to press the year 1967 will have passed into history. By mid-January the inclination to gaze into 1968's crystal ball may well have disappeared and thus would be lost for an entire year the editorial license to predict the future.

Actually, there is hardly any evidence at hand as of this writing to indicate that the future will be appreciably different from the past. Without fear of contradiction one can forecast that there will be both good days and bad days in the year ahead. Some seasons will be for weeping; other seasons will bring shouts of glee.

One thing is certain: the pessimists will grow gloomier while the optimists will polish the brighter their rose-colored glasses.

The world of Medicine will not collapse during 1968—indeed, with foresight and determination it may recapture some of yesteryear's glory.

To be sure, the federal establishment will continue its determination to weld into the framework of man's basic freedoms his inherent right to enjoy prosperity and good health. But it will not succeed in making all men muscular and virile, nor can it make all women beautiful.

The physician will continue to play his role in saving the lives and easing the pains of his fellowmen—perhaps with a few more government restrictions than he knows today but not nearly so fettered as some future generation of doctors may find themselves.

In Alabama, as in the rest of the world, physicians will have something to cheer about, something to regret, and much to fear. The pleonasm of governmental health care programs will, in the long run, prove more beneficial than detrimental to the average practicing physician (although his patient may not fare as well despite the largess.)

Most assuredly the physician will find the time somehow, either by restricting his leisure or cutting down on his patient load, to involve himself more deeply in the secular world. The next twelve months could well be the era when physicians in Alabama by the hundreds come to the conclusion that no one can save Medicine from complete socialization but themselves.

If that should happen they will then go forward into the public places armed for the battle of their professional lives. If they should win, future generations of physicians into eternity will call their names blessed.

And the year 1968 will be indelibly recorded in medical history.

An M. D. Drug Problem

Elsewhere in this issue of the Journal is an article prepared by the State Department of Public Health which seeks to make somewhat clearer the regulations concerning the prescribing of narcotic drugs.

The definitions of the various types of narcotics—Class A, Class B, Class X and Class M—are taken directly from a standard textbook used in most medical colleges.

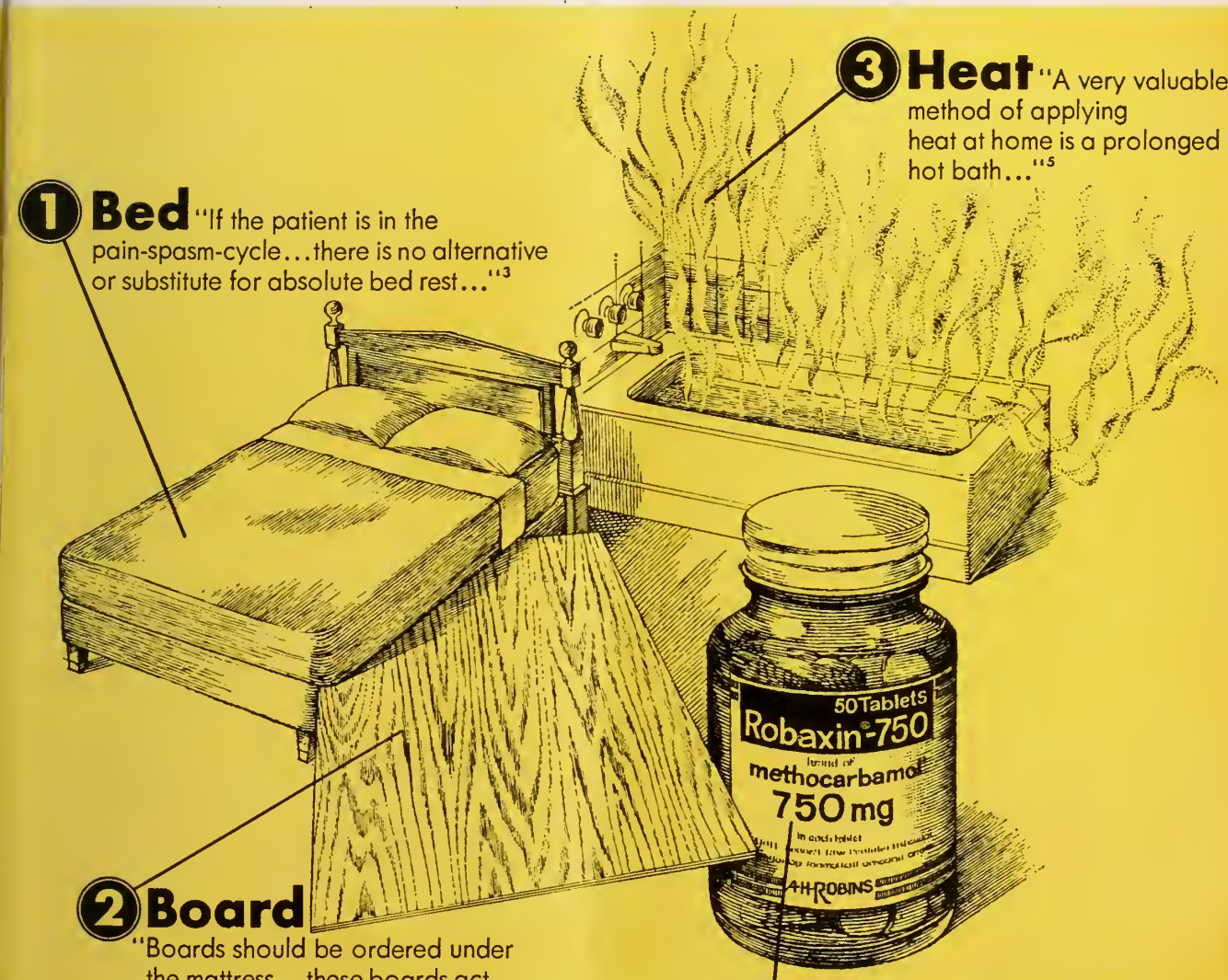
Physicians are urged to read this article, which of necessity must be general in nature. Specific questions about a particular prescription should be addressed to the State Department of Public Health.

Additional data will be forthcoming in the near future from the Health Department which will more specifically outline the correct procedure for prescribing drugs, with emphasis on those drugs which can and cannot be ordered by telephone.

LOW-BACK PAIN

A CONSERVATIVE, FOUR-POINT PROGRAM

The low back pain that is most frequently seen in general practice is mechanical in nature, i.e., postural back pain, joint dysfunction and acute back strain.[1,2] For this type of discomfort, a conservative regimen is usually sufficient to relieve aches and pains, and to help keep the patient functioning. Components of this basic program include:



1 Bed "If the patient is in the pain-spasm-cycle...there is no alternative or substitute for absolute bed rest..."[3]

2 Board "Boards should be ordered under the mattress...these boards act by immobilizing the spine..."[4]

3 Heat "A very valuable method of applying heat at home is a prolonged hot bath..."[5]

4 Robaxin®-750 (methocarbamol, 750 mg. capsule-shaped tablets) A well-tolerated[6] skeletal muscle relaxant, methocarbamol helps relieve spasm "...without interfering with normal tone and movement."[7] And there is little likelihood of sedation.[6]

Indicated for relief of skeletol muscle sposm. **Contraindicated** in hypersensitive potients. **Side Effects** (lightheadedness, dizziness, drowsiness, nauseo) moy occur rarely, but usually disoppeor on reduced dosage. Hypersensitivity reactions develop infrequently. See product literoture for further detoils. **Also available:** Roboxin® Toblets (methocarbomol, 500 mg.) Roboxin Injectoble (methocorbomol, 1 Gm./10 cc.)

References: (1). Godfrey, C.M.: Applied Therop. 8:950, 1966. (2). Gottscholk, L.A.: GP 33:91, 1966. (3). Rowe, M.L.: J. Occup. Med. 2:219, 1960. (4). Cozen, L.: South Dakoto J. Med. 18:26, 1965. (5). Soto-Holl, R.: Med. Sc. 14:23, 1963. (6). Weiss, M. ond Weiss, S.: J. Am. Osteopath. A. 62:142, 1962. (7). Feuer, S.G., *et al.*: New York J. Med. 62:1985, 1962.

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"Yes, Doctor, the pain is gone."

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Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

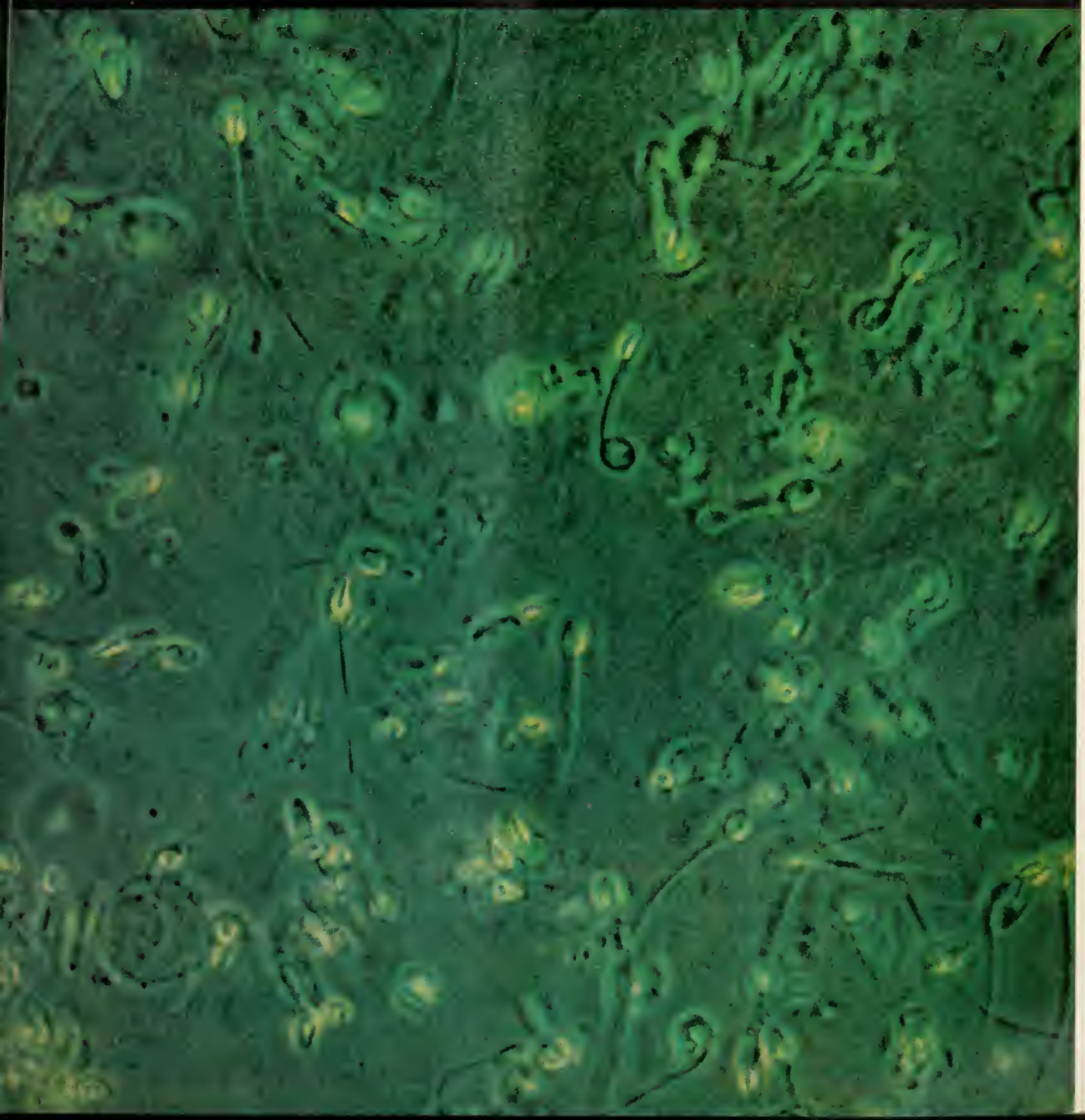
Despite introduction of synthetic substitutes, efficacy of 'Empirin' Compound with Codeine remains unchallenged.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg. & mestranol 0.05mg.)

Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Prescribing Information

Contraindications: Patients with any symptoms or history of thrombophlebitis, pulmonary embolism, liver dysfunction or disease, carcinoma of breast or genital organs, or undiagnosed vaginal bleeding.

Warnings: Discontinue medication pending examination if there is sudden partial or complete loss of vision, proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. The safety of Norinyl-1 in pregnancy has not been demonstrated. If a patient misses two consecutive periods, pregnancy should be ruled out before continuing the medication. If she has not adhered to the prescribed schedule, pregnancy should be considered at the first missed period. Active ingredients of oral contraceptives have been detected in the milk of mothers who received these drugs; the significance to infants has not been determined.

Precautions: Pretreatment physical should include examination of the breasts and pelvic organs, as well as a Papanicolaou smear. If endocrine or liver function tests are abnormal during therapy, repeat tests are recommended after the drug has been withdrawn for two months. Following administration of drug, preexisting uterine fibromyomata may increase in size. Careful observation and caution are required for patients with symptoms or history of epilepsy, migraine, asthma, cardiac or renal dysfunction, cerebrovascular accident, psychic depression, and diabetes. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Possible long-term effects of the drug on pituitary, ovarian, adrenal, hepatic or uterine function must await further studies. The physician should be alert to the earliest manifestations of thrombophlebitis and pulmonary embolism. The drug should be used judiciously in those young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask symptoms of the climacteric. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation posttreatment, premenstruallike syndrome, changes in libido, changes in appetite, cystitislike syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, and itching. The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has neither been established nor disproved): thrombophlebitis, pulmonary embolism, neuroocular lesions.

The following laboratory tests may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

norethindrone — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

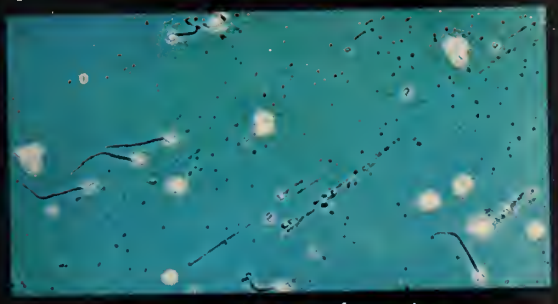
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

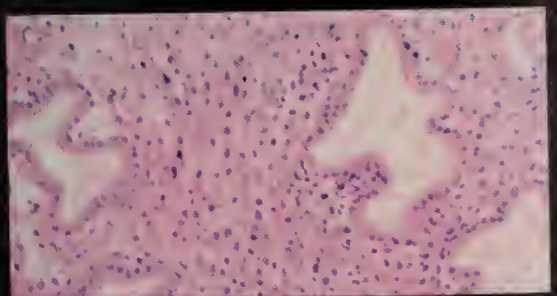
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.



Spermatozoa appear healthy, active, freemoving.

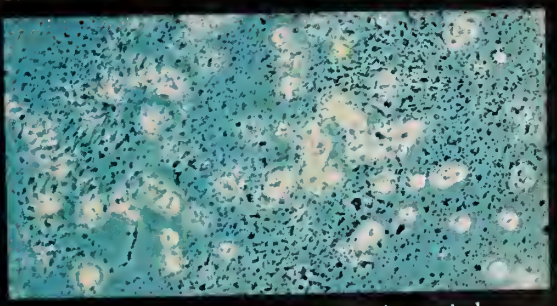


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

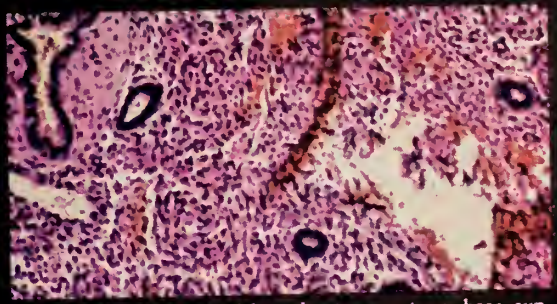
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

Norinyl®-1 tablets
(norethindrone 1mg. ē mestranol 0.05mg.)

- new low dose of time-proved ingredients
- established norethindrone/mestranol ratio
- lower patient cost

An uncommon steroid for common inflammatory dermatoses

In everyday topical steroid therapy, Synalar produces rapid resolution of inflammation and itching in steroid-responsive dermatoses—and at relatively low cost to the patient.

Advanced molecular design enhances potency

Synalar combines the advantage of earlier corticosteroid compounds with unique structural innovations. As a result, preparations of Synalar 0.01% and Synalar 0.025% have been reported to be more potent topically and significantly more effective than hydrocortisone 1.0%. The unique fluocinolone acetonide molecule provides one of the most useful topical corticosteroids for everyday practice.

Impressive clinical results in a wide range of dermatologic problems

The clinical efficacy of Synalar has been extensively documented in the world literature. Commonly encountered diseases such as allergic and contact dermatitis, eczematous and seborrheic dermatitis, and neurodermatitis respond rapidly to Synalar, often where previous therapy with other topical corticosteroids has failed.

Low patient cost for wider usefulness

With Synalar, a high degree of efficacy does not mean high price. And—a small quantity goes a long way. Thus, your patients can often obtain the "economy" of a hydrocortisone preparation with the proved efficacy of a potent, truly advanced steroid.

Synalar®
fluocinolone acetonide





Turn page for contraindications, precautions and side effects

For everyday topical steroid therapy

Synalar® 0.01%

fluocinolone acetonide provides economy in two practical dosage forms

For general use, the most economical and widely applicable concentration of Synalar is 0.01% Cream in a water-washable, vanishing cream base. Synalar Solution 0.01% is especially valuable in dermatoses involving moist, intertriginous areas or hairy sites where creams and ointments do not spread or penetrate readily. Synalar Solution is a unique dosage form—clear, nongreasy, cosmetically elegant.

Product Information

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. *Precautions:* Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. *Side Effects:* Side effects are uncommon with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. In such cases the agent should be discontinued and appropriate measures taken. *Availability:* Synalar (fluocinolone acetonide) Cream 0.025%—5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01%—15, 45 and 60 Gm. tubes and 120 Gm. jars. Solution 0.01%—20 and 60 cc. plastic squeeze bottles. Ointment 0.025%—15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream—5, 15 and 60 Gm. tubes.

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Physicians Shape Alabama History



William Wyatt Bibb, M. D.



Russell McWhorter Cunningham, M. D.

If you are only a fair-to-middling student of Alabama history you are aware of the fact that the first governor of Alabama was a physician.

His name was William Wyatt Bibb, M. D., and history suggests he practiced a lot more politics than he did medicine.

But you have to be a much more astute Alabama history buff to know that the first lieutenant governor of Alabama was also a physician.

His name was Russell McWhortor Cunningham, M. D., and history suggests he practiced a lot more medicine than politics, even though he was eminently successful in the latter.

The story of these two distinguished Alabamians is fascinating, although there is little similarity in their lives.

Bibb was born Oct. 2, 1781, in Amelia County, Virginia, and he was related to just about everybody who was anybody in that Commonwealth—George and Martha Washington included.

In 1789 his parents moved to Elbert County, Georgia, and it was there young Bibb grew into manhood.

After completing his public school education Bibb attended William and Mary College and earned his medical degree from the University of Pennsylvania Medical College, which had been established not too many years previous by Benjamin Franklin.

Armed with his new M. D. degree, Dr. Bibb began the practice of medicine in Petersburg, Ga., in 1801. All that history tells us after that is that in two years of practice he had accumulated a "fortune" and in 1803 he entered politics. If he ever practiced medicine again, there is no evidence of it in history.

In 1803, "still only 21" as the history put it, Dr. Bibb was elected to the Georgia Legislature, serving in that body for two years. In 1805 he was elected to the U. S. House of Representatives, remaining there until 1816 when he was elected to the U. S. Senate.

Shortly thereafter he made a serious political mistake, being a strong supporter of a bill to pay Congressmen and Senators a

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"When I couldn't even smell corned beef and cabbage,
I decided it was time for you, Doc."

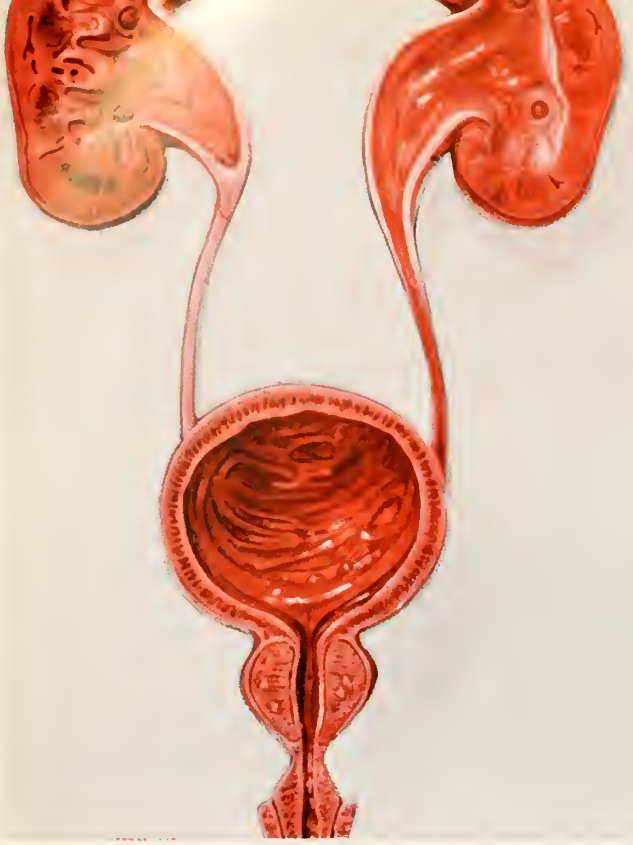


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Precautions: As with all new drugs, periodic blood and liver function tests are advisable during treatment longer than 1 or 2 weeks. **This drug should be used with caution in patients with liver disease, epilepsy, severe cerebral arteriosclerosis, or severe impairment of kidney function.** Because photosensitivity reactions have been reported in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a photosensitivity reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Should bacterial resistance develop or additional nonsensitive strains emerge, other effective antibacterial agents should be added to or substituted for NegGram.

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Before ... please refer to complete prescribing information.

References: ... clinical papers, 1512 cases. Bibliography on request. (2) Bush, ... K. A. and Winter, J. W., in Sylvester, J. C.: Antimicrobial Agents and Chemotherapy—1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

Winthrop

Winthrop Laboratories, New York, N. Y. 10016

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salary of $1,500 a year. (Previously they had been paid nothing.) The bill passed, but it so incensed the Georgia electorate that the entire Georgia congressional delegation, except one, was either defeated or resigned.

Dr. Bibb resigned, evidently quite bitter at his sudden loss of popularity. In 1817, in payment for his support of the pay bill, President Madison appointed Bibb as governor of the Territory of Alabama.

In 1819 Bibb defeated Marmaduke Williams in the state's first race for governor. His term of office proved to be quite brief.

Early in February, 1820, while riding his horse on his farm in Autauga County, a sudden storm developed. A loud clap of thunder frightened the horse, it threw Gov. Bibb, and he was seriously injured. He never recovered from the injuries, dying July 10, 1820.

History doesn't give any details of Gov. Bibb's injuries, but some clues come from what is thought to be the last letter he wrote before his death. Writing to a close friend, Gov. Bibb wrote:

"A considerable discharge of blood has lately passed from the urinary duct, and whether it comes from the bladder or the point where the injury was received we know not. It has however diminished the pain a great extent and also the inflammatory symptoms. I have suspected there might be calculus in the bladder, but all is doubt and uncertainty."

This letter was dated April 15, 1820, ten weeks after his fall and some three months before his death at the age of 40.

While Dr. Bibb's ancestry reads like a "Who's Who" of American history, Dr. Cunningham came from much less imposing circumstances.

He was born Aug. 25, 1855 at Mount Hope in Lawrence County, Alabama. The War Between the States had left his family all but penniless, and it was up to young Cunningham to make his own way.

As a child he had determined to be a physician, and this was his sole ambition when he began teaching school at the age of 17, while doing a little farming on the side.

While teaching school, Cunningham spent as much time as possible studying under Dr. John M. Clark, a prominent North Alabama physician. In 1874 and 1875 Cunningham attended a number of lectures at the Louisville, Kentucky Medical School, and in 1878 enrolled at Bellevue Hospital Medical College in New York City, using the money he had accumulated as a teacher and farmer.

He began the practice of medicine at Newburg in Franklin County in 1879, but much like Bibb, in but two years he had been elected to represent that county in the State Legislature.

Shortly thereafter Dr. Cunningham was appointed physician for the state prison system, and immediately inaugurated a series of programs which resulted in a remarkable improvement of health conditions in the prisons.

Statistics show that in 1881 the annual death rate among prisoners was 18 per cent, but three years later this alarming rate had been reduced to 2.8 per cent.

In 1885 Dr. Cunningham moved from Wetumpka (where the state prison was then located) to Birmingham where he became physician for the Tennessee Coal and Iron Co. (TCI) as well as the Alabama Steel and Ship Building Co. He also had a major private practice of medicine. Dr. Cunningham also established a private hospital in Ensley.

Throughout these years he was very active in organized medicine, serving as president of the Tri-States Medical Association (Alabama, Tennessee and Georgia); serving as president of the Medical Association of the State of Alabama in 1895, and president of the Jefferson County Medical Society in 1896. He served on the State Committee of Public Health for a number of years.

After a long absence from the political scene, in 1896 Dr. Cunningham was thrust

back into public service. He was elected to the State Senate from Jefferson County, and was named president of the Senate in 1898.

In 1900 Dr. Cunningham was elected as a delegate to the 1901 Constitutional Convention, at which time the office of lieutenant governor was created. In 1902 Dr. Cunningham became the first man to be elected to that office.

Elected at the same time to the office of governor was William Dorsey Jelks of Barbour County. Gov. Jelks had a serious lung condition, and in April, 1904, on orders of his physician, he was sent to Arizona.

Upon the expiration of the 20 days spelled out in the constitution, Lt. Gov. Cunningham was administered the oath of office as acting governor. He remained in this capacity until May, 1905.

In the Democratic Primary of 1906 Lt. Gov. Cunningham was a candidate for governor, but he was defeated by Braxton Bragg Comer.

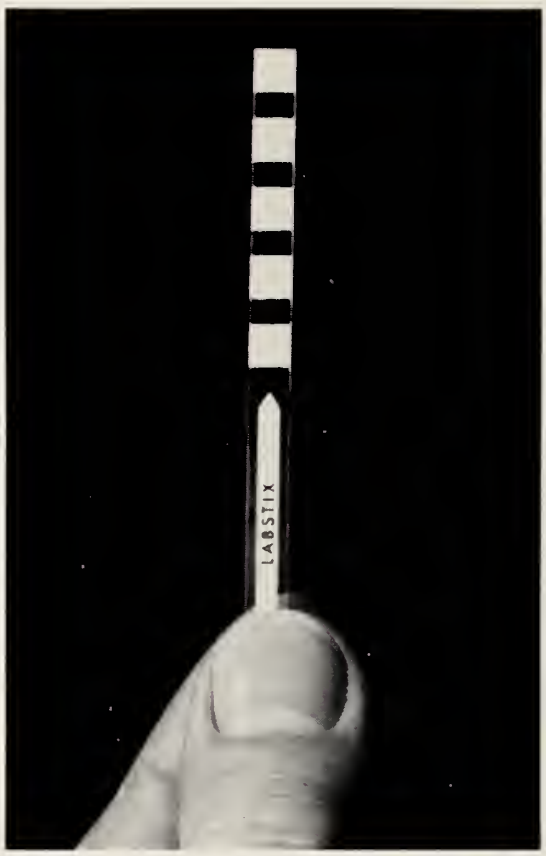
History records, and old-timers confirm, that the Cunningham-Comer race was one of the most spirited in Alabama history. The two men met in face-to-face debates on several occasions—Dr. Cunningham being a dignified, eloquent speaker; Comer a hell-raising gut-fighter.

After his defeat for governor Dr. Cunningham returned to his first love—medicine. He served as Health Officer for Jefferson County until 1916. Dr. Cunningham died June 6, 1921, at the age of 66.

Dr. Cunningham is recalled as being a man of great dignity, but also one with a quick wit. Once, during a newspaper interview, it was pointed out to him that he was born in August, certified to study medicine in August, licensed to practice in August, married in August, his son was born in August, elected to the Senate in August, and elected lieutenant governor in August.

Dr. Cunningham listened to this recounting of dates, and then responded rather solemnly:

"I am therefore a very august man."



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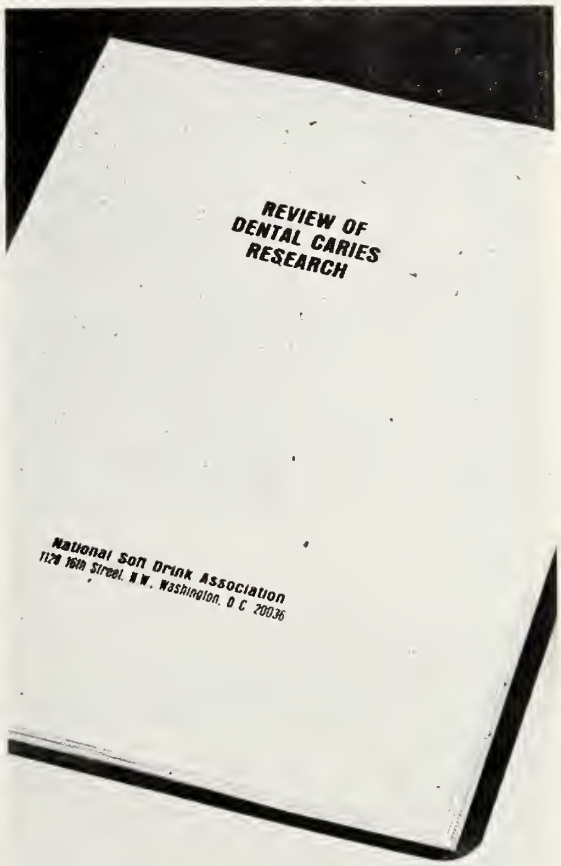
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Published Under the Auspices of the Board of Censors

Volume 37 December, 1967 No. 6

The Surgical Management of Rheumatoid Arthritis Complications

Marcus Whitman, Jr., M. D.

The purpose of this paper is not to present new and original ideas but to serve as a review and general discussion of the surgical management of rheumatoid arthritis complications. A comprehensive discussion of pathogenesis will not be attempted. However, a general review of the synovial component of the disease will lead to a better understanding of the pathological anatomy that is amenable to surgical management. Approximately 60 per cent of patients can be satisfactorily managed by conservative means. The remaining 40 per cent will have some degree of disabling deformity or refractory progression of the disease. It is in this group of patients that surgical management has been found to be helpful.

Rheumatoid arthritis, although a systemic disease, is basically a disease of synovial tissue, be it in joint, tendon sheath or bursa, classically the disease begins in the synovial lining of a joint. The synovium becomes hyperemic, edematous and thickened. Fluid of edema is extruded, bringing about a synovial effusion and a layer of fibrin is laid down over the synovial membrane and articular cartilage. This fibrinous layer becomes organized into granulation tissue which erodes the articular cartilage leaving it pitted. These pits then fill with granulations, causing further proliferation of the process. This of course, constitutes the rheumatoid pannus. This process, if unaltered, can eventually lead to destruction of the majority of articular cartilage in a given joint. Proliferative synovium can invade the subchondral bone and appear on X-ray as cystic erosions. A joint thus destroyed can undergo fibrous and then bony ankylosis.

During the process of synovial proliferation, tissues other than the articular cartilage, are attacked. These are the periarticular supportive tissues such as joint capsule, collateral ligaments and tendons. These fibrous structures become stretched, weakened and destroyed. The effect of this process is to slowly render joints unstable and, in combination with other factors, allow the subluxations and dislocations seen in advanced cases.

The destruction of articular cartilage, combined with joint instability and or subluxation, brings into play another factor which is contributory to the picture of the end stage joint. This is the factor of abnormal joint mechanics. In certain joints, particularly weight bearing joints, in which the disease process has become far advanced, the radiographic appearance will closely resemble degenerative arthritis. Indeed, this probably

Dr. Whitman is Assistant Professor of Orthopaedic Surgery, Medical College of Alabama, Birmingham, Alabama.

is a secondary degenerative arthritis, superimposed on the original disease process.

Another factor contributing to deformity is that of muscle contracture. The muscles in rheumatoid arthritis become markedly atrophic. This is due to disuse and splinting and also to the fact that some muscles, particularly the intrinsics of the hand, become actively involved by the disease process. When joints become acutely painful, muscle splinting to place the joint at rest is a secondary phenomenon. This results in flexion contractures. On the other hand the intrinsic muscles of the hand will frequently contract due to secondary fibrosis causing flexion of the metacarpophalangeal joints and hyperextension of the proximal interphalangeal joints, (Swan Neck deformity).

The tendons are frequently involved by the proliferating synovium, either by direct extension from neighboring joints or from within the tendon sheaths themselves. Not too infrequently, rheumatoid nodules will be found within the substance of tendons. Tendon malfunction, subluxation and rupture are in general the consequences.

This has been a general review of the pathologic changes in the articular and periarticular tissues which cause the disorders most frequently faced in the surgical management of rheumatoid complications.

The surgical management of rheumatoid arthritis can be roughly classified under two headings. First, prophylactic procedures used to relieve pain, prevent impending deformity and correct early mild deformity and malfunction. Second, reconstructive procedures in their purest sense, used to correct disabling deformities when the disease is "burned out." It is hoped that in the future we can decrease the incidence of this very sad occurrence. Most operations that are performed today, are combined prophylactic and reconstructive procedures.

The wisdom of surgery in rheumatoid arthritis has long been debated. The literature now contains enough excellent articles on the subject to enable one to make several safe observations. Activity of the disease is not a specific contraindication to surgery.

The majority of patients subjected to surgery have an elevated sedimentation rate. According to Vainio, the sedimentation rate will undergo the usual elevation during the first two to three post operative weeks but by the fifth week, in a significant number of patients, it will be lower than that of the preoperative value. There is no evidence to suggest that surgery will cause an exacerbation of the symptoms of rheumatoid arthritis.

Indications for Surgery

1. Progressive synovitis with or without deformity which does not respond to an adequate medical regimen.

2. Chronic progressive synovitis with or without deformity which has responded to medical management but has become refractory.

3. Chronic pain even in the presence of late stage joint destruction.

4. Impending or early deformity which is not responsive to drug and physical therapy.

5. Late stage deformity, mild or severe, constituting a significant obstruction to daily functions.

6. Tendon rupture

7. Peripheral nerve compression

8. Spinal subluxation

9. Persistent refractory bursitis

10. Occasionally for subcutaneous nodules

Contraindications of Surgery

1. Lack of patient motivation and co-operation.

This is probably the most clear cut of all contraindications. It is generally accepted that if a patient lacks strong motivation and a willingness to co-operate in postoperative rehabilitation, almost any reconstructive orthopedic procedure is doomed from the beginning.

2. A severely deformed patient with multiple system disease.

In other words, a poor operative risk. In such a patient it might be practical to perform an occasional small isolated procedure which would facilitate daily living functions such as self feeding, bowel and bladder care, etc.

3. A patient undergoing an acute fulminant exacerbation of the disease.

What to Expect from Surgery

Exact results are difficult to predict in any form of surgery and particularly so in reconstructive surgery of the joints. The prognosis following surgery is dependent on many factors, the major of which are:

1. Patient motivation.

2. Extent of destruction of the articular cartilage.

3. Degree of deformity and extent of damage to periarticular supportive structures.

4. The extensiveness of the disease.

5. The general health of the patient.

The results may be quite rewarding, as in early synovectomy, done prior to joint destruction, or dramatic, as in arthroplasty of the metacarpophalangeal joints following complete subluxation. In severely deformed people the results of surgery may not be appreciated by the casual observer, but to a patient who is severely handicapped, a small increase in useful function can be quite gratifying. Frequently the patient undergoes significant cosmetic improvement but it should be remembered that the primary aims of surgery are the improvement of function and relief of pain. A more specific indication of results to be expected will be given in the regional discussion.

Specific Problems of Individual Joints

The following section consists of a very brief discussion of the common deformities of individual joints and an indication of the more common procedures used in these situations.

Cervical Spine

It is probably not commonly appreciated that subluxation of the cervical spine is not an uncommon complication to late stage rheumatoid arthritis. Mildly symptomatic subluxations with slight slipping are probably fairly common. Subluxations, severe enough to cause radicular symptoms are common enough that approximately three per year are surgically treated at the University of Alabama Medical Center. Rheumatoid subluxation of the cervical spine occurs most commonly in the first through fourth vertebrae. Occasionally there is erosion of the odontoid process with atlanto axial subluxation. In the occasional case the first indication of this lesion may be sudden death. The surgical treatment of rheumatoid subluxation of the cervical spine, particularly with radicular symptoms, is closed reduction by skeletal traction, followed by surgical fusion of the involved vertebrae. Lesions of this nature are frequently too high to be easily accessible through the anterior approach. We use the posterior approach and Roger's wiring technique. The result of fusion in these patients has been gratifying.

Shoulder

Rheumatoid involvement of the shoulder joint is quite common; however, it is only rarely that surgical intervention is practical. Neer has stated that very occasionally prosthetic replacement of the humeral head gives satisfactory results. We have seen one case of a severely painful, chronically subluxating shoulder in an elderly woman with relatively little involvement of the opposite shoulder. It was felt that in this particular instance, arthrodesis for the relief of pain was justified. As yet the surgery has not been performed.

Elbow

Surgical intervention has not been widely

practiced in rheumatoid disease of the elbow joint. For a time, excision of the radial head was done to decrease pain and increase pronation and supination. This was only moderately successful and was frequently complicated by deformity at the wrist. When there is marked limitation of flexion and extension due to fibrous or osseous ankylosis, arthroplasty may be helpful. In this instance, a moderate amount of comfortable motion is more desirable than no motion at all. Vainio has published a series, composed mainly of fascial arthroplasties in which the mean range of motion was 104 degrees. It would appear that, in cases where motion was markedly decreased, arthroplasty is a worthwhile procedure.

Wrist

The wrist joint and distal radio-ulnar joint are often involved by rheumatoid synovitis. This process frequently extends rapidly to the extensor tendons, traversing the dorsum of the wrist joint. Severe dorsal synovitis will be evident long before any appreciable changes are evident, radiologically, in the joints. Occasionally, the involved synovium may be mainly that surrounding the tendons, but usually the synovial mass will constitute a combination of peritendinous and joint synovium. The most common consequences of such an involvement are: 1. pain. 2. decreased wrist motion. 3. impaired function of the fingers and 4. tendon rupture. Tendon rupture occurs as a result of invasion by synovium or formation of a rheumatoid nodule within its substance; diminished blood supply due to obliteration of the small nutrient vessels or a combination of the above. If subjective symptoms and or synovitis are persistent in spite of an adequate medical regimen, prophylactic synovectomy should be performed. At time of surgery, all accessible synovium should be excised. If the process is extensive enough to require synovectomy of the intercarpal joints, the prognosis is [illegible] less bright. If there is reduced or [illegible] pronation and supination, the distal [illegible] of the ulna should be excised. If large nodules are found in the tendons they should be excised and the tendons repaired. If the extensor pollicis longus tendon shows signs of attrition it should be transferred from around Lister's tubercle. Rupture of tendons should be treated either by direct suture, tendon transfer, suture of the distal stump to its healthy neighbor, or free tendon graft.

Rheumatoid synovitis of the flexor tendons, traversing the wrist presents a special problem. The flexor tendons to the thumb and fingers along with the median nerve pass through an unyielding space, the carpal tunnel. The carpal tunnel is bounded on three sides by bone and on its anterior border by the relatively rigid transverse carpal ligament. As the proliferating synovium swells and hypertrophies, the contents of the canal become compressed between the bony walls and the transverse carpal ligament. The most distressing symptoms of this phenomena are those of entrapment of the median nerve. This gives rise to symptoms of pain and paresthesia over the palmar distribution of the median nerve and later to atrophy of the muscles of the thenar eminence. Rheumatoid synovitis is, of course, one of the etiologies of the carpal tunnel syndrome. If the symptoms fail to respond to conservative measures, decompression of the carpal tunnel and synovectomy of the flexor tendons is indicated.

Volar subluxation of the wrist is not an uncommon complication in both adult and juvenile rheumatoid arthritis. In the juvenile, it frequently results in marked flexion contractures of the wrist. Arthrodesis of the wrist gives excellent results in the juvenile. It is less frequently indicated in the adult, but it is occasionally helpful.

The Hand

An entire volume has been written on surgical management of the rheumatoid hand. Mention is made of this so that the reader not be deluded by the brief coverage of this most complex of all areas in the surgical management of rheumatoid arthritis.

Synovitis of the metacarpophalangeal joints is a common manifestation of rheumatoid arthritis. Persistent synovitis may result in articular destruction and terminate in bony ankylosis, but more frequently there is an associated attack on the periarticular supportive structures. This and other factors result in ulnar deviation of the fingers and eventually subluxation or dislocation of the metacarpophalangeal joints. Thus, at the end stage there is partial or complete loss of articular cartilage, marked ulnar deviation of the fingers, and subluxation or dislocation of the metacarpophalangeal joints.

Rheumatologists and orthopedists alike, have been slow to accept the bitter reality of this situation and that is if synovitis is persistent in spite of an adequate medical regimen, disastrous results are inevitable unless more aggressive measures are taken. It is now becoming more generally accepted that persistent synovitis, in spite of adequate medical management, should be treated by synovectomy of the metacarpophalangeal joints and if required, repositioning of extensor tendons, proper tendon transfers to the index and little fingers and even the release of the intrinsic muscle tendons that insert on the ulnar side of the fingers. In general, if adequate surgery has been performed, one can expect relief of pain, long term or permanent relief of synovitis, and an insignificant amount of recurrent deformity.

When the deformity has progressed to subluxation of the metacarpophalangeal joints, resectional arthroplasty, coupled with the above soft tissue procedures, offers generally good results. The classical deformity of the proximal interphalangeal joints of the fingers are the boutonniere and the swan neck deformity. The result of reconstruction of these lesions is unpredictable and frequently less than optimal. The classical deformity of the thumb consists of flexion of the metacarpophalangeal joint and extension of the interphalangeal joint. This is frequently accompanied by instability and progresses to subluxation. When these joints are subluxed, unstable pinch is produced by subluxation or instability of these joints. Arthrodesis in the position of function, usually yields good results.

The Lower Extremity

Rheumatoid arthritis of weight bearing joints is not only distressing because of the concomitant pain and accompanying deformity, but also because it retards ambulation. One painful hip, knee or foot may be sufficient, in an already debilitated person, to condemn him to bed or a wheel chair for life. Once the patient is down, crippling contractures develop rapidly. This is particularly true if several of the weight bearing joints are involved by the disease process. If the criteria for surgery are met, timely surgery might abort such a tragedy. As a rule of thumb, reconstruction is begun peripherally and proceeds centrally. However, if the symptoms in the feet are overshadowed by those in the hip or knee, surgery is first done in these areas. It stands to reason that if the patient could ambulate or even sit, except for the symptoms in the hip or knee, this is the region that should be treated first.

The Hip

In general, arthroplastic reconstruction is required in this joint. Occasionally, certain specific pelvic support, osteotomies are helpful. The "hanging hip" procedure, which entails detaching all of the muscle insertions, is reported to be successful. Arthrodesis is very occasionally indicated. The most common procedures performed are mold arthroplasty or replacement arthroplasty with a hip prosthesis. The most common complication causing failure of these procedures is intrapelvic protrusion of the device due to the lack of resistance of the osteoporotic periacetabular bone. In general, reconstruction of the hip is quite helpful in this disease.

The Knee

The knee joint is the largest joint in the body and lends itself well to exploration and

synovectomy. The indications for synovectomy have already been set down. When done early in a patient who is a good candidate, gratifying results can be expected. When the conditions are not optimal, the results are variable. There are several variations of technique; however, under the same given circumstances the results are essentially the same. When the joint shows signs of marked destruction, if there is persistent pain and swelling, synovectomy is still indicated but only for the relief of pain. If the patella is markedly involved, it can be removed at the same time.

Flexion contracture of the knee may be caused by soft tissue contracture with relatively little motion. If there is relatively little destruction of the knee by radiographic examination, posterior capsulotomy and release of the anterior cruciate ligament may be helpful.

Flexion contracture with good flexion but limitation of extension may exist in association with moderate joint degeneration and notching of the femoral condyles. Relatively good results may be expected from an extension type supracondylar osteotomy. If varus or valgus deformity exists, this can be corrected at the same time.

Very occasionally, arthrodesis is indicated. Various prosthetic devices have been devised for tibial plateau replacement. Early reports are equivocal. We have had no personal experience with this method.

Ankle

The ankle is not as frequently and severely damaged as the other weight bearing joints. This is fortunate because it does not lend itself well to synovectomy. Occasionally, when the hip and knee are serviceable and the ankle presents with a crippling lesion, arthrodesis offers a satisfactory result.

The Foot

The most common major deformity of the overload foot is clawing of the toes with or without subluxation of the metatarsophalangeal joints. This may also present with or without bunion formation. The clawed toes are abraded against the top of the shoe causing painful callosities and occasionally chronic ulcerations. The subluxed metatarsal heads are thrust against the sole of the shoe resulting in painful callouses and at times bursa formation. If a bunion is present the symptoms are typical. The treatment of this deformity is forefoot resection. This consists of the excision of all five metatarsal heads and the proximal one half of the proximal phalanges. If the deformity is long standing and the proximal interphalangeal joints are ankylosed, proximal phalangectomy is preferred to partial phalangeal resection. If muscular contraction is pronounced and bow stringing of the extensor tendons presents a problem, they can be divided without causing significant problems. The results of this procedure are excellent.

Occasionally varus deformity of the heel causes difficulty of a magnitude that justifies surgery. Valgus osteotomy of the calcaneous is a satisfactory procedure. At times midtarsal and subtalar arthritis are bothersome enough to require triple arthrodesis.

Summary

The primary and secondary pathological anatomy of rheumatoid arthritis has been discussed. The more classical deformities and their surgical correction have been described. Surgical indications and contraindications and prognoses were discussed.

The management of rheumatoid arthritis is a team project. It requires the efforts of internist, physical therapist, radiologist and the orthopedic surgeon. Only a general discussion of what the orthopedic surgeon can offer the patient, has been presented. No attempt has been made to discuss the broad fields of medical and physical therapy management. Diligent and careful pre and postoperative care is mandatory to successful surgical management, but beyond the scope of this paper. Surgery is not the final answer

to the problem of rheumatoid arthritis but in our present state of knowledge it offers hope for prevention and correction of deformity in the severely crippling forms of this devastating disease.

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A Practical Approach To The Treatment Of Chronic Respiratory Disease

D. S. Tysinger, Jr., M. D.
Dothan, Alabama

Chronic Respiratory Disease has to do with inflammation and irritation of the bronchial tubes, throughout or localized with increased secretions from thin watery to thick mucoid and purulent, extremely hard plugs, edema of the peri-bronchial mucous membranes, allergy, infection, irritants, sluffing of the lining, metaplasia of the epithelium and bronchospasms. These interfere with air flow patterns, and inter-pulmonary mixing of gases in the lungs causing poorly ventilated areas and changes in carbon dioxide and oxygen tension of the blood as a result. This is chronic lung disease.

To understand the lungs and the approaches to treatment, it is first necessary to understand something of the protective mechanisms of the lung and its protective approaches in the normal individual. The first area is the nose and parinasal sinuses. This is an organ that is guarded at front by hairs. Beneath this and behind this, are large areas covered by ciliated epithelium. Among these cells are goblet cells that produce mucous and beneath the epithelium are the serous cells. They secrete serous and mucoid secretions. The purpose of the nose and sinuses are (1) To adjust the temperature of all air entering the lungs to body temperature. (2) To completely humidify the air by the time it reaches the back of the throat, and (3) to filter out all dust particles, bacteria, contaminants, etc., to which the lungs are exposed when the nose is by-passed. It warms the air with the blood flow through the [illegible]nates, it humidifies the air from the [illegible]ons from the serous and goblet cells. [illegible]ulence in the air produced by passing [illegible].e crevices causes the dust particles, [illegible] etc., to precipitate on the layer of fluid that floats on the cilia. Cilia constantly beat toward the back of the throat, fluid is constantly moved to the back of the throat, and the secretions therein, with the particles therein, are dumped into the stomach acid, which is a protective mechanism. The nose is a versatile organ and can function in cold or hot, damp or dry, dusty or clean atmosphere. Our new systems of heating and cooling are quite dry, and the outside air humid, constantly causing changing temperatures, degrees of humidity and dust, etc., as we go in and out. The nose that used to have to adjust primarily for temperatures from outside to inside, or from hot sun to shade tree, now fluctuates between both ends of the spectrum, both in winter and summer with frequent changes having to be made. This causes some degree of congestion of the nose and parinasal sinuses. A stable temperature and humidity, be it dry, cold, warm, or moist, will allow the nose to come to some degree of rest in battling man-made atmospheres.

The nose is impaired in performing its duty properly when we cut the hair and expose it to heavy dust, poke everything imaginable that has an odor or an irritating smell into it, spray it with vasoconstrictors that make it ischemic and re-spray it when it gets hyperemic following a period of ischemia. This completely disrupts its ability to function and opens it up to the over-growth of the bacteria present with thickening of the mucoid secretions and continuing irritation.

The lungs are likewise lined by ciliated epithelium and are supplied with mucous goblet cells and in the submucosa with serous glands. Here again the purpose is the same, to protect the lungs and keep them clean. In

the bronchial tubes, the cilia beat constantly toward the mouth. The layer of fluid on them which is the lung's means of removing all foreign particles, bacteria, etc., as it moves to the back of the throat and is swallowed is known as the mucous cilia escalator. By this means approximately two and one half liters of fluid is moved out of the lungs into the back of the throat and is swallowed, it is part of the internal circulation of fluid, this is done without producing a cough. The ciliary mucous escalator is the lung's first line of defense. As this system breaks down and it is unable to handle secretions, particles, etc., due to any cause, the next line of defense is the cough. Likewise, as the nose begins to break down its second line of defense is the sneeze. When the nose is stuffy and irritated then the individual begins to breathe through the mouth. Now the major bronchi have to take over the job of moistening the air, cleaning the air and heating the air. This causes drying of secretions in the upper airway, causing thickening of secretions, local irritations and can lead to chronic irritation in the major airways.

With these in mind, let's take a good look at what can be done treatment-wise to return to and maintain normal function and pulmonary homostasis.

I. GENERAL:

Anything that will perpetuate sinus trouble, chronic dripping nose, pharyngitis, pyorrhea, gingivitis, etc., must be cleared up since they are chronic sites of contamination to the lungs and perpetuate chronic infection. Therefore, first we must clear up all infections, allergies, etc., from the neck up. (2) Sputum studies for bacteriology, cytology, fungus and allergies should be done. Skin tests should be done, both infectious and allergy, as indicated. Any specific disease entity found should be treated.

All exposure to dust, odors and climatic conditions, etc., should be reduced as much as possible. It is mandatory that the patient quit smoking because of the contaminants in the smoke itself, which are primarily heavy dust, carbon monoxide, hydrogen cyanide, acrolin and formaldehyde.

Flu vaccine should be given. Some specialists prefer periodic antibiotic therapy one week out of the month or every other day, etc., I prefer antibiotics only when the sputum shows signs of infection and treatment at these times with antibiotics until sputum is mucoid and clear. The purpose is to keep down infection and to keep the lungs clean.

II. EXERCISE AND WALKING OXYGEN:

Everyone should be taught breathing exercises, starting with diaphragmatic breathing, purse-lip breathing, working with blow bottles and general breathing principles. This is to increase the effective breathing of the individual. The aim is to improve the use of the diaphragm, strengthen the diaphragm, the muscles of expiration and try to teach the patient abdominal breathing. Patients who have bronchiectasis or bring up copious amount of sputum should also be taught postural drainage. (These instructions may be obtained by writing to the Alabama Tuberculosis Association, P. O. Box 3226, South Highland Station, Birmingham, Alabama 35205)

When an individual is having severe trouble, it is useful to use walking oxygen or added oxygen during the period of exercise, muscle retraining and diaphragmatic breathing, etc. Exercise with oxygen in the neighborhood of 28 to 30 per cent concentration is recommended. This can be accomplished by use of a nasal catheter with a long piece of tubing so the patient may breathe oxygen from a tank or outlet at one to two liters per minute, while he is doing his exercises; he may use it for rehabilitation exercises five minutes out of the hour.

The protein anabolic agents do increase rate and speed of improvement in the rehabilitation effort.

III. HAND SPRAYS AND NEBULIZERS:

No matter what medication you give a

patient, if he squeezes or sprays into the mouth as he breathes in, it appears to be innocuous, and the tendency to over-use it is 99 per cent. There is no such thing as explaining this type of drug to the patient and getting the patient to understand and use it properly when he is frantic and having trouble breathing. There are other ways to use these same drugs that are much more effective and much less dangerous. The patient who is breathing in and sprays into his opened mouth a measured dose of isoproterenol or racemic-epinephrine, actually delivers into the lungs a quite variable dosage. The amount expired at the end of expiration is also quite variable and by this technique it is impossible to give a consistent, measured dose of medication. You end up not knowing what dose the patient is getting, this is not good.

There are two primary drugs used in hand nebulizers, isoproterenol, 1:100 and racemic-epinephrine, 2.25 per cent solution.

IV. ISOPROTERENOL:

This is a drug that has its only good effect on the peri-bronchial musculature, it has cardio-tonic effects that are dangerous and it is a potent vascular dilator. Therefore, in dealing with a patient who has bronchospasm and who has peri-bronchial edema and thick, mucoid secretions, it only relaxes the bronchial musculature. At the same time it is doing this, it will increase the engorgement of the peribronchial tissue and increase submucosal edema by its vaso-dilator actions. It also stops the ciliary escalator activities of the peribronchial mucous membrane, this leads to collection of fluids. It is a dangerous drug in that it causes areas of focal necrosis in the myocardium when used in heavy doses. Isoproterenol is not picked up across the peri-bronchial mucous membrane. To get isoproterenol to the musculature, it must be picked up into the blood stream, a blood level established, and then passed through the lungs and come back through the bronchial arteries from the left side of the heart to the bronchial musculature before it is effective. This drug when used then must establish a blood level to be effective. The same degree of improvement in FVC and MVV can be found when using isoproterenol, by spraying it into the mouth, and holding the breath as is found when it is sprayed into the mouth as a breath is taken in, it is picked up through the oral mucous membrane. Where this drug is desired, it is safer to use one to four drops under the tongue every four hours.

V. RACEMIC EPINEPHRINE:

This is the other drug commonly used and has very little effect on the bronchial musculature and when used in a spray probably gets very little to the bronchial musculature. Therefore, it is not a good broncholytic agent as used. It is quite effective as a vaso-constrictor of the peri-bronchial tissue and is effective in submucosal edema. It is picked up well across the peri-bronchial mucous membrane, even where secretions are present and Racemic Epinephrine and Ephedrine tend to increase the effectiveness, rate of beating, and the rate of movement of the ciliary mucous escalator, and this is much desired. Most nebulizers put out such large and varying droplets that they do not enter the airway to any extent. One other point in connection with nebulizers is that the individual with bronchospasm, obstruction, edema, etc., will only carry the droplets that are of sufficiently small size to enter the lungs to the ventilated areas. Turbulence rains the particles out before they can get to this group of bronchi. For these reasons hand sprays nebulizers are not recommended. These drugs should be reserved for use with IPPB equipment, not with hand nebulizers. This will be discussed later. As an axiom, in no instance should any carelessly controlled dosage of medication be given for any disease.

VI. COMBINATION DRUGS:

Here we are talking primarily about the combinations of Ephedrine or Isoproterenol, with Aminophyllin and Phenobarbital, or a Tranquilizer. These have a threefold approach to keep the bronchial tubes dilated,

to heighten the effectiveness of the ciliary mucous escalator and to keep the patient breathing easier and allay apprehension. Patients who show no response to broncho-dilators on testing the vital capacity and MVV will show up to 25 per cent reduction in the work of breathing when taking one tablet four times a day routinely. In chronic lung disease there is a continuous persistent tendency towards bronchospasm and peri-bronchial edema, etc., I recommend the use of one of these preparations routinely to produce continuous bronchial dilation and try to prevent bronchospasm. This is the same as when we use the long acting nitroglycerin like drugs in coronary artery disease to prevent coronary artery spasm and insufficiency. Rather than using the spray only when the patient is in trouble, which is comparable to using only the nitroglycerin tablet under the tongue for the control of coronary artery pain when present. Racemic epinephrine sprays may have a nitroglycerin-like place to support the AEP pills.

VII. EXPECTORANTS:

These drugs are primarily iodides, glycerol guicolate, and ammonium chloride. The side effects of the iodides are excretion through the sweat glands with rash and salivary glands with swelling similar to parotitis. If a patient is started at a low level and the dose is slowly built up, and when symptoms appear drop back three drops and continue for a period, then slowly increasing again, usually any individual can go up to 20 to 30 drops four times a day without any trouble. The skin rash rarely is a problem. Potassium iodine in a saturated solution is ineffective as an expectorant in doses less than 20 drops four times a day. My average dosage is 20 to 40 drops four times a day. As to side effects and trouble, in all the patients I have treated since 1951, I have yet to find a patient who could not take iodides. As to the thyroid effects, I have yet to see anyone have trouble with the thyroid gland as a result of the iodides, who did not have trouble previously. The gastric irritation associated can usually be controlled by using buttermilk, tomato juice, port wine or some such vehicle for delivery. There have been several ulcers, these are usually in rather ill patients. Several have had sub-total gastrectomy performed. They are still going fine and agree that they would have the gastrectomy again and continue with medication, rather than quit the medication. In addition to liquefying secretions in these higher doses, it is an anti-fungal agent both of which are good to have with frequent use of antibiotics. Glycerol-guiacolate is a good expectorant but it is also rarely used in sufficient doses to be worthwhile. A minimal dosage is two teaspoonsful every two hours to as much as the patient needs while the patient is awake. This drug also produces nausea and this has been a drawback. In acute situations both drugs can be used. Ammonium chloride two grams in tablet form four times a day is effective, but here again gastric irritation becomes a problem. If a patient has a dry hacking cough or productive cough these drugs will increase the quantity of secretion sufficient for the ciliary escalator by its own bronchorrhea to clean the lungs and by continuous cleaning restore a more healthy state. The effort is to keep the mucous ciliary escalator working.

VIII. XANTHINE DRUGS, ETC.:

These products can be successfully used in IPPB equipment and can be given intravenously, orally, as rectal suppositories, and intramuscularly. They come in liquids and pill form and are quite effective as supports to AEP preparations and expectorants. They are broncho-dilators and vaso-dilators.

IX. RESPIRATORY STIMULANTS:

There is only one available effective oral respiratory stimulant and its effectiveness has at times been questioned. This is Emivan®. It is useful in increasing depth of respiration in situations that produce alveoli hypo-ventilation such as in the elderly individual as he tries to get to sleep with slow increase in CO_2 or in the obese indi-

vidual who is put to bed, and around the clock in individuals who chronically hypoventilate without any defects. To be effective, doses of 60 to 120 mg, every 8 to 6 hours is usually required. When CO_2 is lowered by means of IPPB, these respiratory stimulants are an adjunct to maintaining lower CO_2 levels over an extended period. These drugs do increase oxygen consumption and CO_2 production in proportion to their increase in muscular effort. If their use causes an increase in PCO_2 then they should be discontinued.

X. STEROIDS:

In several diseases, the steroids are specific treatment. These can be found in various articles and textbooks, and will not be gone into. In looking at the non-specific problem, steroids have proven useful in alveolar capillary membrane difficulties that are chronic and permanent; where used in fairly low dosage with the idea of continuing treatment indefinitely. In the acute situation, if the patient is having great difficulty, specific infections, etc., are known and are being treated, it is usually safe to start with high dosages of steroids rapidly reducing them, to take care of the blanket, huge, inflammatory process and speed return of the patient to a more normal state.

XI. INTERMITTENT POSITIVE PRESSURE BREATHING:

The use of intermittent positive pressure breathing in chronic respiratory disease is to deliver medication to the disease areas and to deliver solutions to help the lungs get rid of secretions and inflammatory material. Secretions in the lungs are thick, when the cohesive forces are great and the adhesive forces are low. They are watery when the adhesive forces are great and the cohesive forces are low. The first purpose of the IPPB then, is to deliver water, or saline or per cent ethinol solutions, in all instances increase the adhesive force and decrease the cohesive forces of the secretions, effort to get rid of the material in the tracheo-bronchial tree. It is also used as a carrier of the drugs to treat edema and bronchospasm.

(a) *Nebulizers and Respirators*

The type nebulizer used is of great importance. A nebulizer that nebulizes continually during inspiration and expiration will of itself put 75 to 80 per cent of what is put in it out the exhalation valve into room air during the expiration phase of breathing, thus larger quantities of medications are used and uncertain dosages are put into the patient. The machines that use side arm nebulizers usually have an opening flow rate of about 100 liters per minute. Our individual with lung disease is having trouble breathing at a normal flow rate of about 30 liters per minute and at this rate he is producing turbulent problems, such as wheezing and turbulent obstructions. When we try to push 100 liters a minute into a patient having trouble with 30 liters per minute and at the same time increase the mouth to alveolar pressure difference by 20 centimeters of water or more, we are only compounding turbulent problems. A second factor with this type of machine is that the side arm nebulizer is usually run at 5 to 6 liters per minute, when this is pushed into a mainstream flow tube of dry air or oxygen, flowing at 100 liters per minute, this greatly dilutes the volume of fluid and medication per liter of air flowing to the patient by 4/5 or 80 per cent. When we take into account also the amount expired unused by the patient along with the 100 per cent output of the exhalation valve during expiration, it is not hard to visualize and understand the insufficiency of side arm nebulizers and this type of equipment. All respirators must have dry air or oxygen through the machine itself. It must be humidified beyond the machine. It takes 71 cc of water per minute to humidify 100 liters of air per minute at body temperature. (One cc of water at body temperature will humidify 1,400 cc of air.) At a 20 liter per minute flow it only takes 14 cc per minute and at 30 liters per minute it takes 21.5 cc per minute. Inspira-

tion is usually 1/3 of the minute total and expiration 2/3 of the minute. Therefore, at 100 liters a minute, it would take 24 cc of water a minute. At 30 liters per minute it would require 7 cc a minute, and at 20 liters per minute it would take 5 cc a minute. Since patient volume exchange at these flow rates is usually 6 to 10 liters per minute the amount of water per minute for 6 liters would be 4 cc, and the amount of water for 10 liters would be 7 cc. This is to humidify the air from the machine. The nebulizer gives out water droplets homogenized in air. This is not humidity. Humidity is molecular water in air and the water droplets nebulized give a tremendous surface area for molecular escape and humidification of the air to the patient. The nebulizer must supply sufficient water. Most machines combine room air with the air or oxygen through the machine at the maxing venturi and therefore less water by about ½ or more is required. This should point out clearly the failure of side arm type of nebulizers in chronic lung disease as well as the failure of this type of equipment as a humidification system. Nebulizers should be mainstream, that is all air going to the patient flows through nebulizers and picks up a maximal quantity of nebulized material. To be as accurate as possible, everything should nebulize and only during the inspiratory phase. We still lose small quantities of solution and medication out of the exhalation valve during the early expiratory phase of breathing. If we use a flow rate control machine along with the mainstream nebulization and inspiratory only nebulization, then we can cut the flow rate to 20 liters per minute, or 30 liters per minute. We can adjust it to the patient and thereby get delivery into the lungs without turbulent precipitation of medication, and without machine early recycling before inspiration is complete. (It is suggested that the August issue "Clinical Respiration Patient Relations" be reviewed.) It may be well to again point out, that a reduction in bronchial tube diameter of ¼ causes an increase in resistance of 16 times. In the individual with generalized disease without plugging or obstruction, the mainstream nebulizer without pressure, through which the patient breathes in and out should prove to be an effective means of nebulization. The patient is already adjusting his flow rates and pressure difference to the best of his ability. To repeat for emphasis, where there is no obstruction or localized disease, this type of nebulizer then will deliver generally throughout. If the mainstream nebulizer is driven through a Y tube side arm then the patient can cause no flow during the expiratory period. This type of equipment is not very effective in the individual who has obstructive and localized disease. Since the air flow and nebulized material follows the general pattern of air flow of normal breathing, and in these situations moves air in and out of the remaining normal lung, it delivers very little to the diseased areas. With IPPB equipment flow rate controlled, we can match this individual's normal breathing pattern and flow rate then first deliver medication to the normal areas, then as pressure builds up to 20 to 30 cm, H_2O it tends to stretch and produce flow into the blind-end tubes in the diseased areas, until cycling pressure is reached. And in this way deliver medication into the areas not reached without intermittent positive pressure. High flow rate equipment causes turbulent obstruction and machine recycling before inspiration is complete, thus not reaching the diseased areas. A machine adjusted correctly and working efficiently, will frequently cause during treatment periods signs of hyper-ventilation, (dizziness, weakness, and tingling of the fingers, etc.)

IPPB in chronic lung disease is preferably done with compressed air either by pump or tank rather than oxygen. Where oxygen is used in the more severe individual, it is not uncommon to get a post IPPB drop in the arterial oxygen saturation, frequently to as low as 40 millimeters of mercury. Arterial CO_2 with IPPB is slowly washed down in these situations and slowly built back up, where as the arterial oxygen saturation where oxygen is used even in the air oxygen

mixtures will cause a precipitous drop in arterial oxygen tension.

(b) Solution used in IPPB equipment are water, saline, and 20 per cent ethenol solutions. All three of these tend to thin secretions, that is increase the adhesive forces and decrease the cohesive forces. In the real thick plugs, this will tend to loosen the secretions on the peri-bronchial mucous membrane around the outside of the plug and with medication added to reduce peri-bronchial edema and swelling, cause some detachment from the bronchial wall at one point or another and by this means allow air to get around the plugs into the alveolar spaces and after repeating this breath after breath the tangential forces of coughing now have a volume to compress and blow the plug out spitball fashion. The thin watery secretions that have high adhesive forces and low cohesive forces, thin towards the center. In the process by adding medication and dilating the tubes before as explained, we again break through this time through the middle; get air behind the fluid and again with cough and in this instance with the help of the ciliary mucous escalator clean out these obstructed areas. It is a help to have the therapist two to three times during the first part of each treatment to hold the machine on until maximum pressure is reached to help get air around and/or through these plugs. In so doing you tend to exaggerate the pressure effect in the obstructive areas with marked increase in effectiveness of treatment. One other cause of poor results with IPPB treatment is failure to get a proper breathing curve as is explained in "Clinical Respirator Patient Relations," and rapid shallow breathing in an effort to get the treatment over in a hurry. The patient should be given a definite amount of medication in the nebulizer until he has used it up by slow, deep breathing letting the machine do most of the work of filling the lungs.

Water and saline are both used effectively, [illegible] do liquify secretions. As to whether to [illegible] water or saline there are reports, that [illegible] does tend to reduce the surfactant effect in the alveolar area, where as saline does not. A 20 per cent ethinol solution, (the most common combination is 2 cc. of 80 per cent vodka and 2 cc. of water) does lower surface tension as well as add to the adhesive properties of solution, etc., and may to some extent help stabilize the alveolar elastima and improve the breathing mechanism. This is the most commonly used combination by me, in the chronic emphysematous patient who needs daily IPPB. Other things have been used and some of them should not be used, namely the glyceriated compounds. These solutions have very high cohesive forces, they are hygroscopic, therefore, they take up water rather than give it off. As they are used, drops getting larger in the upper airway taking on water, thus getting larger more rapidly and in effect producing cough and sputum. The sad point is that the cough is caused by the upper airway irritation by accumulations of these compounds plus water, that acts in the same way as does stimulating the upper airway with a suction catheter. This is not the most ideal way of producing a cough. Anytime a patient coughs, he will get rid of material in the lungs, therefore this works better than nothing in the process of ridding the lungs of secretions but is the most inefficient way to do it. These substances have caused anaphylactoid reactions.

The next group of substances are those that breakdown mucous namely acetylcysteine. This is an excellent drug, however, its use as IPPB material is very dangerous. The odor which is an irritant can occasionally cause rather severe bronchospasm. It is so effective that it liquifies mucous to the extent that it cannot be moved out by the mucous ciliary escalator and cough may not move the thin secretions and so rapidly the patient may drown due to the liquid secretions thereby produced. If it is used in a respirator, it should be done in a hospital where the patient can be suctioned out. It is useful through a bronchoscope in alveolar proteinosis.

Next is dornivac, this is the only enzyme that can be used repeatedly, particularly in

such situations as bronchiectasis, abscess, etc., without causing reactive bronchospasm on the second usage. It is usually used until the sputum become mucoid then the patient should be switched to water, saline or vodka and water. Here again, it can liquify secretions at a quite rapid rate. It can lead to trouble from the amount of secretions liquified.

Aminophyllin, in about 12½ milligrams per cc dosage has proven effective in situations where there is an acute flare up of bronchospasm and edema.

In the allergic situations patients will frequently get good results on chlor-trimeton malate 40 milligrams per 5 cc in IPPB equipment, this is the only one of the antihistamines that I have found effective when used this way. The lungs are such a huge histamine producing area that no oral dosage can approach being effective. In the non allergic situations, this same drug is also effective in anoxic states which causes as heavy histamine output as does the allergic state. These have been found to be unusually effective in many acute situations.

Antibiotics produce irritation to mucous membranes. This is noted clinically by the burning sensation in the chest during and following their use. It is useless to float antibiotics on pus from the outside. Antibiotics should be given orally or parenterally.

Isoproterenol and racemic epinephrine have been discussed. I have found the most effective method to be that of 2 to 4 drops of 1:100 isoproterenol under the tongue every four hours and 2 to 4 drops of a 2.25 per cent solution of racemic epinephrine in the nebulizer as frequently as every half hour if needed.

Environment Determines Heart Disease

It is not where you live but how you live —the diet, stresses and strains and other environmental factors—that determines the rate of coronary artery disease. This fact is dramatized by a report from Tokyo, indicating that the incidence of death due to heart diseases since World War II has increased markedly, approaching levels reported in the United States and European countries. The incidence of death due to cardiac diseases in Japan, especially from coronary artery disease, was previously reported to be one of the lowest in the world. Dr. Yaware Yoshitoshi and associates "fear that incidence of myocardial infarction [formation of a plug or clot in a blood vessel] in Japan will increase in the future as life expectancy increases and the daily pattern of living becomes more modernized."—*Geriatrics,* April, pp. 123-131.

Continuing Education Courses

DERMATOLOGY SYMPOSIUM, Wednesday, January 17, 1968, at the Mortimer Jordan Armory, 1821 South 8th Avenue, Birmingham, Alabama. Dr. Lamar S. Osment is course director and there will be a fee of $15.00. This is a one-day symposium on dermatological problems encountered in the everyday practice of medicine.

SEMINAR ON OTOLARYNGOLOGY, Thursday, January 18, 1968, at the Mortimer Jordan Armory, 1821 South 8th Avenue, Birmingham, Alabama. Dr. Julius N. Hicks is course director. The fee is $15.00 and registration is limited to 15 persons.

Reservations for the above courses may be sent to Dr. Margaret S. Klapper, M. D., Director, Division of Continuing Medical Education, Medical College of Alabama, 1919 7th Avenue, South, Birmingham, Alabama 35233.

Narcotic Regulations

Various federal, state, and city laws exist to control the standard of purity of drugs and their manufacture, sale, and dispensing. These laws must be known and observed by the practitioner. It should be noted that the most stringent law takes precedence, whether it be federal, state, or local.

The U. S. Bureau of Narcotics now categorizes narcotics in four classes: A, B, X, and M. Class A includes the varieties that are considered to be highly addicting; class B includes the drugs that are thought to possess relatively little addiction liability; class X narcotics are so-called "exempt" narcotics; class M narcotics are "especially exempt."

CLASS A NARCOTICS include opium and its derivatives and compounds; phenanthrene opium alkaloids, their salts, derivatives, and compounds; coca leaves, their alkaloids, derivatives, extracts, or compounds; meperidine (pethidine), its salts, compounds, and preparations; and opiates, their salts, derivatives, and compounds. "Opiates" include derivatives of meperdine, methadone, morphinan, and thiambutene, as well as other agents designated as addicting drugs by the Commissioner of Narcotics.

A properly prepared prescription order for class A narcotics must be written in ink or indelible pencil, or typewritten; the name and address of the patient must be given and the date recorded. The physician must include his narcotic registry number and address, and sign his name in ink or indelible pencil. The prescription order cannot be given orally or by telephone [and must not be refilled].

CLASS B NARCOTICS include the following substances and any of their salts: [compounds containing limited amounts of] codeine, hydrocodone, dihydrocodeine, ethylmorphine, isoquinoline alkaloids of opium, apomorphine, nalorphine.

Prescription orders for class B narcotic drugs may be transmitted by the physician to the pharmacist orally or by telephone. However, the physician must supply the pharmacist [within a specified time] the same information as required for a class A narcotic prescription order, except that the prescriber's signature is not required.

CLASS X NARCOTICS [exempt] are those that contain in each fluid ounce or avoirdupois ounce, along with therapeutically active nonnarcotic ingredients, not more than 2 grains of opium, ¼ grain of morphine or any of its salts, 1 grain of codeine or any of its salts, ½ grain of dihydrocodeine or any of its salts, or ¼ grain of ethylmorphine or any of its salts. Also included in class X are diphenoxylate preparations in liquid or solid forms containing not more than 2.5 mg of diphenoxylate and not less than 25 ug of atropine sulfate per dosage unit.

Narcotic drugs included in class X may be prescribed in the same manner as any other drug, and the prescription order may be refilled as directed by the physician.

Excerpted from "The Pharmacological Basis of Therapeutics", third ed.

Venetian Blinds Dangerous

Baby's crib should be placed well out of reach of windows equipped with venetian blinds, according to a warning sounded by Dr. F. P. Bornstein of El Paso, Texas. Dangling cords are too much of a temptation. He has observed two fatal, "definitely preventable" accidents in young children. In both cases the mothers left the children alone for a short time. On their return, the children were found tangled up and suspended in the venetian blind cord. Symptoms were typical of accidental hanging.—*J. A. M. A.*, April 24, p. 173.



Let's be specific about Campbell's Soups... and *reducing diets*



There are more than 30 million people in America who are overweight. During the next year, you probably will see more than 1,000 of them in your own practice.

One good way to help these patients is to give them a reducing diet based on ordinary eating patterns.

Campbell has prepared a sensible plan for weight control based on ordinary eating patterns. The plan consists of a patient instruction booklet and a set of menus which provide approximately 1,200 calories daily. The menus are balanced to provide the minimum daily requirements of nutrients.



To obtain a supply for your office write to:
Campbell Soup Company, Box 265, Camden, N. J. 08101

For the ambulant patient with hemorrho



. . . METAMUCIL®

brand of psyllium hydrophilic mucilloid

Relieves strain

Metamucil produces soft, well-formed stools that minimize pain and strain and reduce the chance of thrombosis in hemorrhoidal veins.

Softens stools

Metamucil, a highly purified vegetable colloid, absorbs water, hydrates the intestinal contents and produces a demulcent "smoothage" that aids healing of hemorrhoids and anal fissures.

Reduces pain

Metamucil reduces pain by eliminating the abrasive irritation of hard, dry stools.

Restores bowel function

Metamucil produces a gentle distention of the intestinal wall that stimulates natural peristalsis and helps reestablish normal, rhythmic bowel function.

And in constipation...

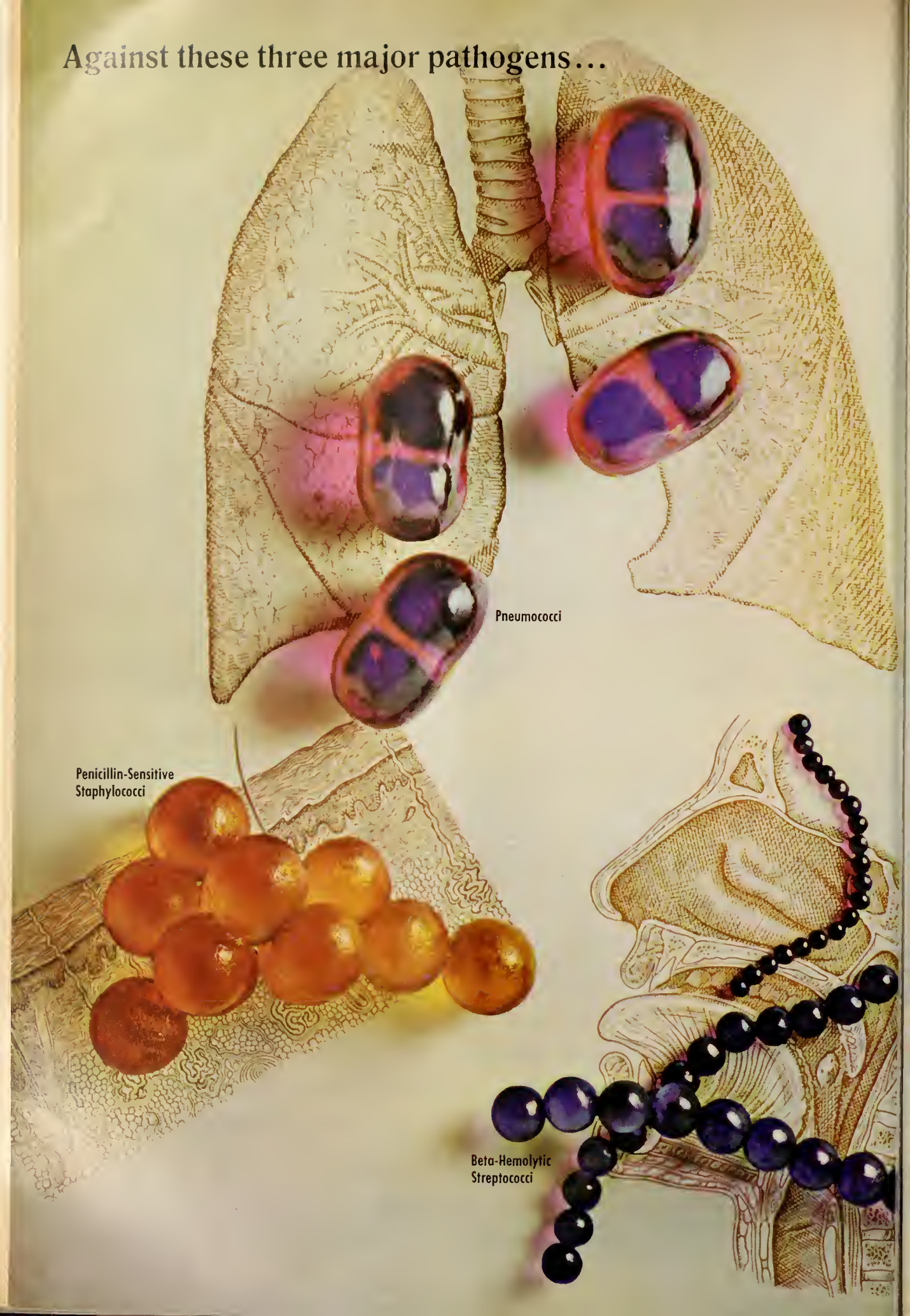
Metamucil furnishes, as it has for more than 30 years, the simple physiologic corrective to constipation, eliminating both hard stools and the need for harsh laxatives.

Usual Adult Dosage:

One rounded teaspoonful of Metamucil powder in a glass of cool liquid, or one packet of Instant Mix Metamucil in a glass of water. An additional glass of liquid is helpful.

SEARLE *Research in the Service of Medicine*

Against these three major pathogens…



V-Cillin K® provides dependable oral antibacterial therapy

because it combines a high degree of activity...

V-Cillin K has been shown to be effective in the treatment of streptococcus and pneumococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy in patients with a history of rheumatic fever or congenital heart disease.

with high blood levels, even when taken with food

V-Cillin K is stable in acid and immediately soluble. High serum levels, therefore, are reached rapidly. Because it is acid stable, V-Cillin K is well absorbed even when taken close to mealtime. These desirable properties help make V-Cillin K a dependable penicillin for oral use.



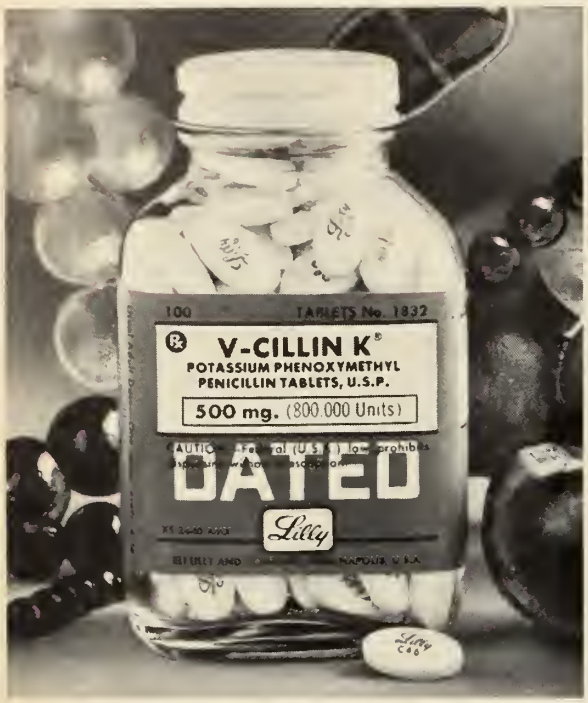
V-Cillin K® Lilly 701449

Potassium Phenoxymethyl Penicillin

Now available: V-Cillin K®, Pediatric, for Oral Solution, 250 mg. (400,000 units) per 5 cc. of solution.

(See next page for prescribing information.)

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K, the patassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly), combines acid stability with immediate solubility and rapid absorption. Higher, mare rapid serum levels are obtained than with equal oral doses of penicillin G.

Indications: Streptococcus, pneumococcus, and gonococcus infections; infections caused by sensitive strains of staphylococci; prophylaxis of streptococcus infections in patients with a history af rheumatic fever; and preventian af bacterial endocarditis after tonsillectomy and tooth extraction in patients with a history of rheumatic fever or congenital heart diseose.

Contraindication: Penicillin hypersensitivity.

Warnings: In rare instances, penicillin moy cause acute anaphylaxis which may prove fatal unless promptly contralled. This type af reaction appeors more frequently in patients with a history of sensitivity reactions to penicillin ar with bronchiol asthma or other allergies. Resuscitative drugs should be readily available. These include epinephrine and pressor drugs (as well as axygen for inhalatian) for immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: Use cautiously, if at oll, in a patient with o strongly positive history of ollergy.

In prolonged therapy with penicillin, and porticulorly with high parenteral dosage schedules, frequent evoluotion of the renal and hematopoietic systems is recommended.

In suspected stophylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin moy be ossocioted with the overgrowth of penicillin-insensitive orgonisms. In such coses, discontinue odministration and take oppropriate meosures.

Adverse Reactions: Although serious allergic reoctions are much less common with oral penicillin than with intromusculor forms, monifestations of penicillin allergy moy occur.

Penicillin is a substance of low toxicity, but it possesses o significont index of sensitization. The following hypersensitivity reoctions have been reported: skin roshes ronging from maculopopular eruptions to exfoliotive dermotitis; urticaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, ond prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenio, thrombocytopenia, and nephropathy are rorely observed side-effects and are usually associoted with high parenterol dosoge.

Administration and Dosage: Usual dosoge range, 125 mg. (200,000 units) three times o doy to 500 mg. (800,000 units) every four hours. For infants, 50 mg. per Kg. per day divided into three doses.

See package literoture for detailed dosage instructions for prophylaxis of streptococcus infections, surgery, gonorrhea, and severe infections.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), 250 mg. (400,000 units), ond 500 mg. (800,000 units).

V-Cillin K, Pediatric, for Orol Solution, 125 mg. (200,000 units) ond 250 mg. (400,000 units) per 5 cc. of solution (approximately one teaspoonful). [042567]

Additional infarmatian available ta physicians upan request. Eli Lilly and Company, Indianapalis, Indiana 46206.

Lilly

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The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—A group of advisors to the Public Health Service and an AMA official separately emphasized the seriousness of the health manpower problem.

The Allied Health Professions Education Subcommittee of the National Advisory Health Council said in a report to the PHS surgeon general, Dr. William H. Stewart, that health manpower is the critical factor in the provision of health services in this nation.

"With the rising capacity of medicine to provide a satisfying array of services, the lowering of financial barriers to service, and the growing acceptance of a public responsibility to assure that all people have adequate medical service, needs and demands for medical care continue to outstrip their availability," the report said.

"Many people are struggling with approaches to the measurement of health manpower shortages. But no one figure can express the total need. And even if it were possible to envision ideal health services staffing for a community, a state, or a nation, the continuing development of new knowledge and techniques, new patterns of service, and new methods of payment are constantly changing the needs, both for numbers and varieties of health workers."

Dr. Alvin J. Ingram of Memphis, Tenn., a member of the AMA Board of Trustees, told the AMA Conference on Aging and Long-term Care in Baltimore, Md., that there is an urgent need for all categories of health personnel.

"We have been challenged by government to revamp our system of health care, to make it available to every one and to do so more economically than at present," Dr. Ingram said. "To do this will require not only larger numbers of health personnel, but more coordinated and efficient use of all members of the health team.

"The basic purpose of all of medicine—research, education and practice—is the application of the art and science of the profession to the individual patient or to the community as a whole.

"Furthermore, we are constantly exposed to remarks about the brain drain, the siphoning of physicians trained in other countries and their acceptance here to fill our own voids, even at the expense of intensifying already desperate shortages in other nations.

"Yet we have our brain drain in this country—the consistent and progressive decrease in the ranks of practicing physicians as members of the profession turn from the primary responsibility of patient care to research, teaching and administrative service. In the past 15 years, the number of physicians in full time private practice has decreased at the rate of almost one per cent a year, from 75 per cent in 1950 to 62 per cent in 1965."

Dr. Ingram decried the growing dependence of the nation's health care system on foreign physicians.

"This dilemma can hardly be exaggerated," Dr. Ingram said. "Not one foreign graduate meets our domestic requirements which include graduation from an approved medical school which has undergone regular, competent inspection."

* * *

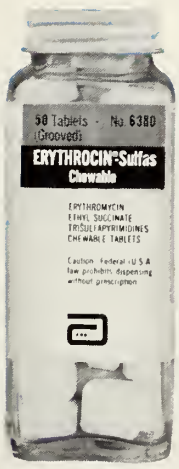
Dr. Ingram cited government figures showing that the percentage of foreign physicians

(Continued on Page 678)



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT

(Continued from Page 675)

in the United States had risen from 16 per cent in 1956 to 26 per cent in 1966 and that nearly half of them were from under-developed or developing countries that badly need their services at home.

* * *

The House Committee on Government Operations has issued its third report charging costly and inefficient administration of research grant programs by the National Institutes of Health and other Public Health Service bureaus.

The Congressional watchdog panel said the PHS had made relatively little effort to improve its administration of grants since the committee's two previous reports in 1961 and 1962.

"Inadequate administrative performance is demonstrated, for example, by the inept handling of payments for the indirect research costs of grantees and the extremely poor administration of the General Research Support and Health Sciences Advancement Award programs," the recent report said.

"NIH and other PHS bureaus were found to have made excessive indirect cost payments to grantees." (About $500,000 in one case).

The American Medical Association supported legislation to continue federal aid for construction, training and research under the Health, Education and Welfare Department's retardation program, but opposes grants to help pay for initial staffing.

The AMA position was outlined by Dr. F. J. L. Blasingame, AMA executive vice president, in a letter to the House Public Health and Welfare Subcommittee. He said:

"The extent to which the problem of mental retardation can be ameliorated in future years depends largely upon continued research. Although some breakthroughs have been effected such as the prevention of some types of mental retardation as a result of our increased knowledge of body metabolism, there are still gaps in research, personnel and

financing which must be overcome. While the ultimate answer to the problem of mental retardation is prevention, we recognize that in the meantime, mentally retarded individuals must be cared for and must be educated and trained to the limit of their capabilities.

"In this regard, the AMA supports efforts to provide higher standards of care for the institutionalized retarded, special educational programs day care centers within the community, counseling services for the parents of retarded children, and efforts to create job opportunities for retarded adults. For these programs to be effective, the nation needs additional facilities and an increase in properly qualified personnel. We, therefore, are pleased to submit for the record our continued support of the expansion, extension and improvement of facilities and services through construction, training and research grants . . .

"The bill, however, also amends the present Act to authorize grants for meeting a portion of the cost of compensating professional and technical personnel during the initial operation of the facility. Although such federal financial assistance during the early years might enable a mental retardation facility to undertake a more comprehensive program than it might otherwise attempt, it can be demonstrated that once reliance is placed on a federal subsidy for staffing, the role of the federal government as a provider of operating funds will not easily be ended. Once a facility has been constructed, the community can and should assume the responsibility for its operation, including the costs of staffing."

* * *

Pesticide residues in the nation's food supply have remained low for the third consecutive year, according to the Food and Drug Administration's third annual "total diet" study. In the survey, food samples were collected in 30 cities over an 11-month period ending last April. Samples were analyzed to identify and determine the level of pesticide residues. The FDA said residues remained well below acceptable daily intake levels established by the World Health Organization and the Food and Agricultural Organization of the United Nations.

* * *

President Johnson appointed a National Advisory Commission to make recommendations on health facilities needed by the United States in the future. The chairman is Boisfeuillet Jones of Atlanta, Ga., president of the Emily and Earnest Woodruff Foundation and a former special assistant for health and medical affairs for the Department of Health, Education and Welfare.

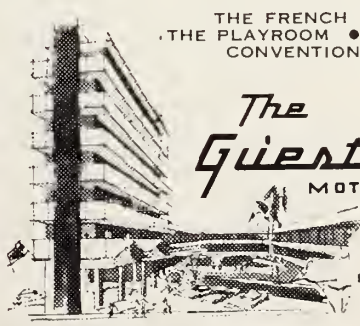
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The recently-enacted Vocational Rehabilitation Act of 1967 creates a National Center for Deaf, Blind Youth and Adults, sets up a special system to grant federal aid, through state rehabilitation agencies for handicapped migrant workers, continues the federal-state financing system of state rehabilitation agencies for another two years, extends for another year federal planning grants to states studying the needs of the disabled, and eliminates state residency requirements for proving residency before aid can be received.

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it's a Guest House

. . . with 171 handsome rooms designed for your comfort and convenience. A center-of-everything location including Birmingham's University of Alabama Medical Center . . . making The Guest House a favorite of Doctor's wives and in-town outpatients. Superb dining, dancing and nightly entertainment. Come stay with us often.

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PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Dermatology—

Age 30; University of North Carolina 1962; Board eligible; seeking group or associate practice. Available July 1968. LW-141

Age 42; University of Wisconsin 1964; seeking solo or associate practice. Available July 1968. LW-142

General Practice—

Age 30; Western Reserve Medical School 1964; seeking group, industrial, associate or institutional practice. Available August 1968. LW-143

Age 34; University of Tennessee 1958; seeking solo, group, industrial, or associate practice. Available immediately. LW-144

Age 63; Northwestern University 1933; interested in general practice and psychiatry, solo, industrial, institutional, or research and teaching. Available immediately. LW-145

Age 28; Medical College of Alabama 1967; prefers associate practice in town of 10,000 population or less to fulfill scholarship requirements. Available July 1968. LW-146

Age 32; Seton Hall Medical College 1963; seeking group, industrial, associate, or institutional practice. Available immediately. LW-147

Age 37; University of Nebraska 1958; seeking industrial or institutional practice. Available immediately. LW-148

Age 37; University of Miami 1959; seeking solo, associate, group, industrial or institutional practice. Available immediately. LW-149

Age 43; University of Louisville 1947; certified American Board; seeking group practice. Available immediately. LW-150

Obstetrics—Gynecology—

Age 29; University of Tennessee 1961; Board eligible; seeking assistant or associate practice in north or central Alabama in town of 30,000 plus population. Available July 1968. LW-151

Age 35; University of Tennessee 1958; Board eligible; seeking group or associate practice. Available August 1968. LW-152

Age 35; Medical College of Alabama 1957; seeking associate practice in town of 10,000 plus population. Available July 1968. LW-153

Age 32; Tulane University 1961; seeking group or associate practice. Available January 1968. LW-154

Orthopedics—

Age 31; Vanderbilt Medical College 1961; Board eligible; seeking group or associate practice. Available July 1968. LW-155

Age 33; University of Texas 1958; Board eligible; seeking solo, group, or associate practice. Available immediately. LW-156

Age 32; Vanderbilt University 1960; seeking solo or associate practice. Available immediately. LW-157

Pathology—

Age 31; Louisiana State Univ. 1961; Certified American Board; seeking solo or associate practice. Available July 1968. LW-158

Age 33; Univ. of Tennessee 1958; Board eligible; seeking associate practice. Available January 1968. LW-159

Radiology—

Age 36; University of Tennessee 1958; seeking solo, group or associate practice. Available June 1968. LW-160

Age 52; Medical College of Virginia 1943; Certified American Board; seeking group, solo, associate, or institutional practice. Available immediately. LW-161

Surgery—

Age 31; St. Louis U. Sch. of Medicine 1963; Board eligible; seeking solo or associate practice. Interested in General surgery with some general practice. Available July 1968. LW-162

Age 33; Indiana Univ. of Med. School 1959; Board eligible; seeking group or associate practice. LW-163

Age 31; Medical College of Alabama 1961; Board eligible; National Board; seeking associate practice in town of 20,000-80,000 population. Available immediately. LW-164

Urology—

Age 32; Medical College of Virginia 1961; Board eligible; seeking associate practice. Available March 1968. LW-165

Age 33; Johns Hopkins University 1960; seeking group or associate practice. Available July 1968. LW-166

Age 31; Tulane University 1961; Board eligible. Available July 1968. LW-167

Age 33; Emory University 1960; National Board; seeking group or associate practice. Available July 1968. LW-168

Physicians Wanted

General Practitioners—

Opportunity in town of approximately 3,000 population in trade area of over 10,000 population located in South Alabama within 50 miles of Gulf Coast. Clinic available. PW-91

Opportunity for one or more doctors in rapidly expanding eastern suburb of Birmingham. Attractive brick building consisting of 10 rooms and adjacent parking facilities. PW-92

Physician needed to associate with a large industrial concern in a northern Alabama metropolitan area of over 100,000. Four physicians on staff. Starting salary $16,000-$18,000 depending on qualifications. Excellent working conditions and fringe benefits. Good advancement opportunities. PW-93

For solo practice in town of approximately 17,000 population located in east central Alabama. 48-bed general hospital. Arrangements available for office space. Excellent recreational advantages which include hunting, fishing and water sports. City owned airport. Numerous civic clubs. Excellent schools and churches. Expanding industrial and agricultural area. PW-94

Physician interested in Internal Medicine and Chest Diseases to provide general medical services in 184 bed Tuberculosis Hospital in North Alabama. References and experience data required in advance. U. S. citizens and fully licensed physicians given first choice. Others will be considered upon request. Salary open. PW-95

Opportunity in town of approximately 2,000 population located in Northwest Alabama in trade area of 15,000 population. Spacious clinic building available rent free. Possibility for industrial position. Two hospitals with 170 beds located in adjoining city. PW-96

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. Hospital and nursing home in the city. PW-97

For town of approximately 1,000 population in Northwest Alabama, near Tennessee Valley waterways. New 15-bed clinic available. Centrally located near metropolitan areas. Extensive industrial developments. PW-98

For town with 1,000 population in trade area of 5,000 in Southeast Alabama. Nearest large city with population of 50,000 is 55 miles. New clinic available rent free. No physicians in the town. Hospitals in surrounding towns within 30 miles. Several churches and schools. PW-99

Opportunity in port town of 1,000 plus population in population center of 10,000 located in Southeast Alabama. Clinic available. Hospital located less than 20 miles away. Recreational advantages for water sports. Expanding industrial and farming area. Churches and schools. PW-100

For partnership practice in clinic in town of 2,000 population in area of 10,000 population located in North-central Alabama. 40-bed hospital. PW-101

For assistant or associate in clinic located in town of 10,000 population located in Northeast Alabama. 65-bed Hill-Burton hospital. PW-102

For group practice in town of 10,000 population in North Alabama. PW-103

Needed for town of approximately 1,500 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-104

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-105

General Practitioner-Surgeon—

For two towns with combined population of approximately 5,000 in West Alabama. Seeking one or more physicians; possibility of four additional physicians needed in the county. Hospital is located in each town and plans are underway for expansion of facilities. Office space available. Nearest city with 50,000 population is 30 miles. PW-106

General Practitioner-Obstetrician—

Opportunity for physician in city of 15,000-20,000 population located in Southeast Alabama in college town. Interest in surgery is also desirable. PW-107

General Practitioner or Internist—

For partnership or associate practice. Excellent location, fully equipped office in city of 12,000 population. 130-bed accredited hospital. Possibility for larger clinic group. PW-108

Surgeon—

Board qualified or Board certified surgeon for partnership in 1968 in city of approximately 40,000 population located in Southeast Alabama. PW-109

Wanted for practice leading to partnership in clinic located in city of 10,000 population in area of 30,000 population in Northwest Alabama. Starting salary of $20,000-$30,000 depending on experience and training. 75-bed accredited hospital. PW-110

Student Health—

New 75-bed facility to be occupied in late 1968. Present staff of seven full time physicians. Seeking one additional physician for fall 1967 and two (one as a replacement) for fall 1968. Salary negotiable. Appointments are full time with regular University benefits. PW-111

Full time salaried position of assistant director on staff of four. 65-bed well equipped infirmary with adequate office space. Excellent laboratory and x-ray facilities. Liberal fringe benefits. PW-112

Alabama Department of Public Health

Team Nursing—A New Approach

By Joyce Murphree

Information Specialist

Alabama Department of Public Health

Last February the Montgomery County Health Department was faced with an acute shortage of public health nurses. A succession of resignations, which occurred coincidentally within a short period of time, had reduced the nursing staff from twelve to six.

The problem of a shortage of staff was magnified by an increased demand for services. The expansion of services was due in part to certification of the Montgomery County Health Department as a home health agency, which is essentially a status enabling the department to be reimbursed by the federal government for certain services under the Medicare program.

To cope with the problem Mrs. Marjorie Bottoms, supervisor of the generalized program of nursing, suggested to Mrs. Anne Williams, nursing director, that the county give team nursing a trial. Mrs. Bottoms had been introduced to the team nursing concept at a two-week workshop in September 1966, at the University of North Carolina.

With the approval of the nursing director, Mrs. Bottoms reorganized her staff on the team nursing basis. The program was begun in March, and the results achieved in the following six months have been impressive. Since the team nursing approach was adopted, services have increased an average of 40 per cent with the staff at 50 per cent below the previous level.

The team approach to nursing represents development of a relatively new philosophy. By pooling their knowledge in daily conferences, nurses are able to evaluate problems and approach solutions as a group, or team.

Previously, Montgomery County had been divided into 12 districts with one nurse being assigned to each district. District boundaries were eliminated under the team nursing program. However, each nurse continues to work in an area in which she is familiar with the social and economic situations of the families.

The daily staff conference is the key to the team nursing method. In the morning conference the nurses are given their assignments, and they discuss the cases they will handle. The discussions include the type of care needed by an individual patient, individual characteristics of the patients, problems peculiar to the patient, and geographical directions.

Each nurse contributes to the discussion according to her knowledge and experience.

(Continued on Page 687)

This article reprinted from *Alabama Health*, Sept., '67.



after surgery

B and C vitamins are therapy: Therapeutic amounts of B and C in stress formula vitamins often are vital during periods of physiologic stress. STRESSCAPS capsules, designed to meet increased metabolic demands, aid in achieving a more comfortable convalescence, a more rapid recovery. After surgery, as in many stress conditions, STRESSCAPS vitamins are therapy.



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:

Vitamin B_1 (Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

Lederle

627-6—3613

When the agitated geriatric disrupts the home...

His teen-age granddaughter won't invite friends home because of his outbursts.



for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ



See following page for prescribing information.

When the agitated geriatric disrupts the home...

Anxiety that *seriously interferes* with the individual's performance at work, at home, or in the community may be regarded as *moderate to severe* in degree.

Mellaril often recommends itself to the treatment of moderate to severe anxiety because it

- helps control the most frequent symptoms: marked tension, agitation, apprehension, restlessness, hypermotility
- often alleviates anxiety-induced somatic complaints
- frequently helps strengthen emotional resources
- helps the patient maintain realistic contact with environment, closer harmony with family

Thus, when you consider the anxiety moderate to severe... consider Mellaril.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming...	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

(Continued from Page 682)

Nurses recently employed in hospitals are an asset to the veteran public health nurses, Mrs. Bottoms explained, and the seasoned public health nurses share their knowledge and experience in public health with the newer nurses.

Although the daily conferences are basic in the team nursing approach, there are secondary changes in organization and procedure that contribute to the effectiveness of team nursing.

The use of a diary to record scheduled visits was replaced with a card filing system. However, diaries are used to some extent to remind nurses of appointments with physicians, to record mileage, and to note supply needs.

Another new technique is the telephone call from the nurse in the field to the office to learn of any emergency cases in her area.

Conservation of time has been achieved by mailing appointment notices rather than having the nurse visit the patient's home to make the appointment.

A nursing care plan for all families receiving services enables any member of the nursing team to have a workable knowledge of the family. Noted on the nursing care report are patient problems (physical, emotional, economic, and social); objectives for the family and patient; the approach to be used in reaching the objectives; results achieved.

After using the team nursing method for several months, Mrs. Bottoms recognized several advantages. Among these are: (1) balancing of case loads for all public health nurses; (2) conservation of mileage; (3) coverage by the team of those visits scheduled by nurses absent because of annual or sick leave; (4) using the combined knowledge and experience of all nurses in solving problems; (5) careful assessment and auditing of nursing records; (6) establishment of definite goals and procedures; (7) better handling of emergencies through daily telephone calls from field to office; (8) covering cases with fewer staff members.

Only two other counties in Alabama—Jefferson and Autauga—are using the team nursing method at this time, but Mrs. Dorothy Holland, public health nursing consultant in the Alabama Department of Public Health, predicts that other counties will adopt this approach. Team nursing can be used to advantage in any county with two or more public health nurses, and there are only nine counties in Alabama with just one nurse.

Government financing of a growing number of health programs has resulted in multiplying demands for nursing services, Mrs. Holland pointed out. A shortage of public health nurses and limited funds will make it necessary to employ home health aides, she said.

Team nursing will be even more desirable when home health aides are employed. Home health aides are unlicensed, non-professional workers who are prepared to give personal care and provide related housekeeping services for convalescent, disabled, or chronically ill patients.

Home health aides cannot replace public health nurses. However, proper supervision can make it possible for persons with varying degrees of ability and preparation to function in assistive and supportive roles without jeopardizing the health and safety of those being served.

The shortage of nurses no longer exists in the Montgomery County Health Department, but there are no plans to abandon team nursing. Appointments in September restored the home visiting staff to 12, organized into two teams of six nurses each. "Team nursing is here to stay," said Mrs. Bottoms. "We like it."



BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

August 1967

Live Births / Deaths / Causes of Death	Number Registered During August 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	5,660	3,554	2,106	18.7	20.2	21.3
Deaths	2,430	1,633	797	8.0	8.8	8.4
Fetal Deaths	108	38	70	18.7	16.1	21.9
Infant Deaths—						
under one month	93	51	42	16.4	23.3	22.5
under one year	121	65	56	21.4	28.6	26.0
Maternal Deaths	4	1	3	6.9	4.9	4.6
Causes of Death						
Tuberculosis, 001-019	22	11	11	7.3	7.4	7.8
Syphilis, 020-029	1		1	0.3	1.0	1.4
Dysentery, 045-048						
Diphtheria, 055						
Whooping cough, 056						
Meningococcal infections, 057					0.3	0.3
Poliomyelitis, 080, 081						
Measles, 085	1		1	0.3	0.7	0.7
Malignant neoplasms, 140-205	381	304	77	125.9	122.4	119.4
Diabetes mellitus, 260	41	19	22	13.5	16.0	16.6
Pellagra, 281						
Vascular lesions of central nervous system, 330-334	320	209	111	105.8	127.7	110.6
Rheumatic fever, 400-402					0.3	
Diseases of the heart, 410-443	778	572	206	257.1	286.9	263.2
Hypertension with heart disease, 440-443	75	29	46	24.8	35.8	32.5
Diseases of the arteries, 450-456	73	50	23	23.8	20.4	20.0
Influenza, 480-483	1	1		0.3		
Pneumonia, all forms, 490-493	51	22	29	16.9	14.7	18.9
Bronchitis, 500-502	5	5		1.7	1.0	1.4
Appendicitis, 550-553	3	2	1	1.0	0.7	0.3
Intestinal obstruction and hernia, 560, 561, 570	3	2	1	1.0	4.3	4.4
Gastro-enteritis and colitis, under 2, 571.0, 764	6		6	2.0	3.0	0.3
Cirrhosis of liver, 581	18	12	6	5.9	9.4	6.1
Diseases of pregnancy and childbirth 640-689	4	1	3	1.3	4.9	4.6
Congenital malformations, 750-759	25	16	9	8.3	5.9	5.4
Immaturity at birth, 774-776	27	10	17	8.9	7.6	6.7
Accidents, total 800-962	204	139	65	67.7	66.5	72.4
Motor vehicle accidents, 810-835, 960	124	90	34	40.6	33.4	39.2
All other defined causes	335	204	131	110.7	129.1	107.2
Ill-defined and unknown causes, 780-793, 795	131	54	77	43.3	41.5	61.6

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

October 1967

Examination for Intestinal Parasites	1,834
Examination of Malaria	2
Salmonella & Shigella (blood-feces-urine-food)	374
Examination for tubercle bacilli	4,557
Examination for gonococci	2,432
Serological tests for Syphilis	30,792
FTA	74
Darkfield	2
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	39
Staphylococcus (cultures for isolation and confirmation)	290
Examinations for diphtheria (isolation and confirmation)	297
Streptococci examinations	2,682
Mycology	34
Agglutinations	19
Vincent's infection	0
Complement fixation test	151
Test for Phenylketonuria (PKU)	7,648
Cytology	1,599
Water examinations	3,238
Milk and dairy products examinations	5,167
Sea food examinations	188
Examination for Negri bodies (smears and animal inoculation)	373
Virology	15
Rh Factor Bloods	752
Miscellaneous	1,041
Total	63,600

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1967

	Sept.	Oct.	*E. E. Oct.
Tuberculosis	115	106	132
Syphilis	91	101	133
Gonorrhea	431	424	350
Chancroid	2	2	1
Typhoid fever	1	2	5
Undulant fever	0	0	0
Amebic dysentery	1	0	4
Scarlet fever & strep. throat	665	520	69
Diphtheria	5	5	5
Whooping cough	10	6	11
Meningitis	2	7	5
Tularemia	0	0	0
Tetanus	2	1	1
Poliomyelitis	0	0	0
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	7	7	23
Chickenpox	5	5	2
Mumps	23	12	16
Infectious hepatitis	30	24	56
Typhus fever	0	0	0
Malaria	1	0	0
Cancer	507	1,192	665
Pellagra	0	0	0
Rheumatic fever	14	8	19
Rheumatic heart	29	12	24
Influenza	25	40	31
Pneumonia	147	199	143
Rabies—Human cases	0	0	0
Pos. animal heads	1	4	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

removes the mental blur

that clouds vision

SOLFOTON®

Each tablet or capsule contains

PHENOBARBITAL 16 mg.
(Warning: may be habit forming)
BENSULFOID® (See P D R) 65 mg.
Precaution: same as 16 mg. of phenobarbital



Constructive Therapy

A Solfoton tablet or capsule at 6 hour intervals maintains sedation at the threshold of calmness, sustaining a mental climate for purposeful living.

Literature and clinical samples sent upon request.

FEDERAL LAW PROHIBITS DISPENSING WITHOUT PRESCRIPTION

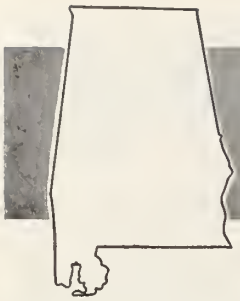
AVAILABLE

Solfoton *(yellow, uncoated tablets "P")*
100s, 500s, 5000s

Solfoton Capsules *(yellow and brown)*
100s, 500s, 1000s

Solfoton S/C *(sugar-coated beige tablets)*
100s, 500s, 4000s

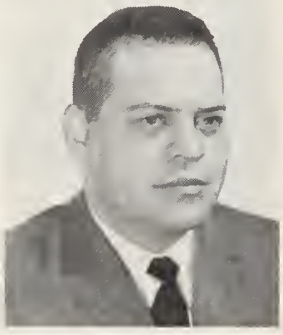
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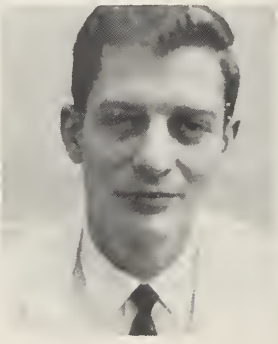
around the state

New Physicians Licensed To Practice In Alabama

With this issue the Journal will begin publishing monthly the names of physicians newly licensed in Alabama, either by examination or reciprocity. Those listed below were licensed beginning in January, 1967.



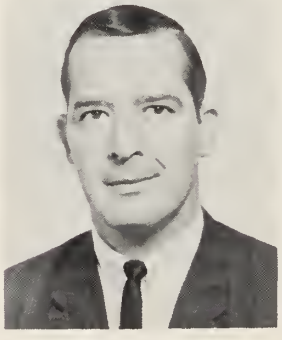
William Edward Bowers, Jr., M. D., University of Oklahoma School of Medicine, 1955, Reciprocity with Oklahoma—Intends to locate in Birmingham.



Milas Eldon Davis, Jr., M. D., University of Arkansas School of Medicine, 1959, Reciprocity with Arkansas—Located in Mobile.



Elbridge Lee Brubaker, M. D., University of Tennessee College of Medicine, 1965, Reciprocity with Georgia—Intends to locate in Montgomery (Stationed at H & R Point).



Robert Norman Ervin, M. D., University of Tennessee College of Medicine, 1956, Reciprocity with Mississippi—Intends to locate in Mobile.



Byron David Casteel, M. D., Harvard Medical School, 1941, Reciprocity based on examination given by the U. S. Navy —Intends to locate in Montgomery.



Robert Faber Martin, M. D., University of Virginia School of Medicine, 1932, Reciprocity with Virginia—Intends to locate in Birmingham.

(Continued on Page 694)

Before prescribing, see complete prescribing information in SK&F literature or *PDR*. A brief precautionary statement follows.
Contraindications: Glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal obstruction, or bladder neck obstruction.
Precautions: Use cautiously in the presence of hypertension, hyperthyroidism, coronary artery disease; warn vehicle or machine operators of possible drowsiness.
Usage in Pregnancy: Use cautiously, especially in the first trimester. *Note:* The iodine in isopropamide iodide may alter PBI test results and will suppress I^{131} uptake; discontinue 'Ornade' one week before these tests.
Adverse Reactions: Drowsiness; excessive dryness of nose, throat or mouth; nervousness; insomnia. Other known possible side effects of the individual ingredients: nausea, vomiting, diarrhea, rash, dizziness, fatigue, tightness of chest, abdominal pain, irritability, tachycardia, headache, difficulty in urination. Thrombocytopenia, leukopenia and convulsions have been reported but no causal relationship has been established.

a stuffy nose is no laughing matter



Ornade® Trademark

Each capsule contains 8 mg. of Teldrin® (brand of chlorpheniramine maleate), 50 mg. of phenylpropanolamine hydrochloride, and 2.5 mg. of isopropamide, as the iodide.

Spansule® Capsules

brand of sustained release capsules

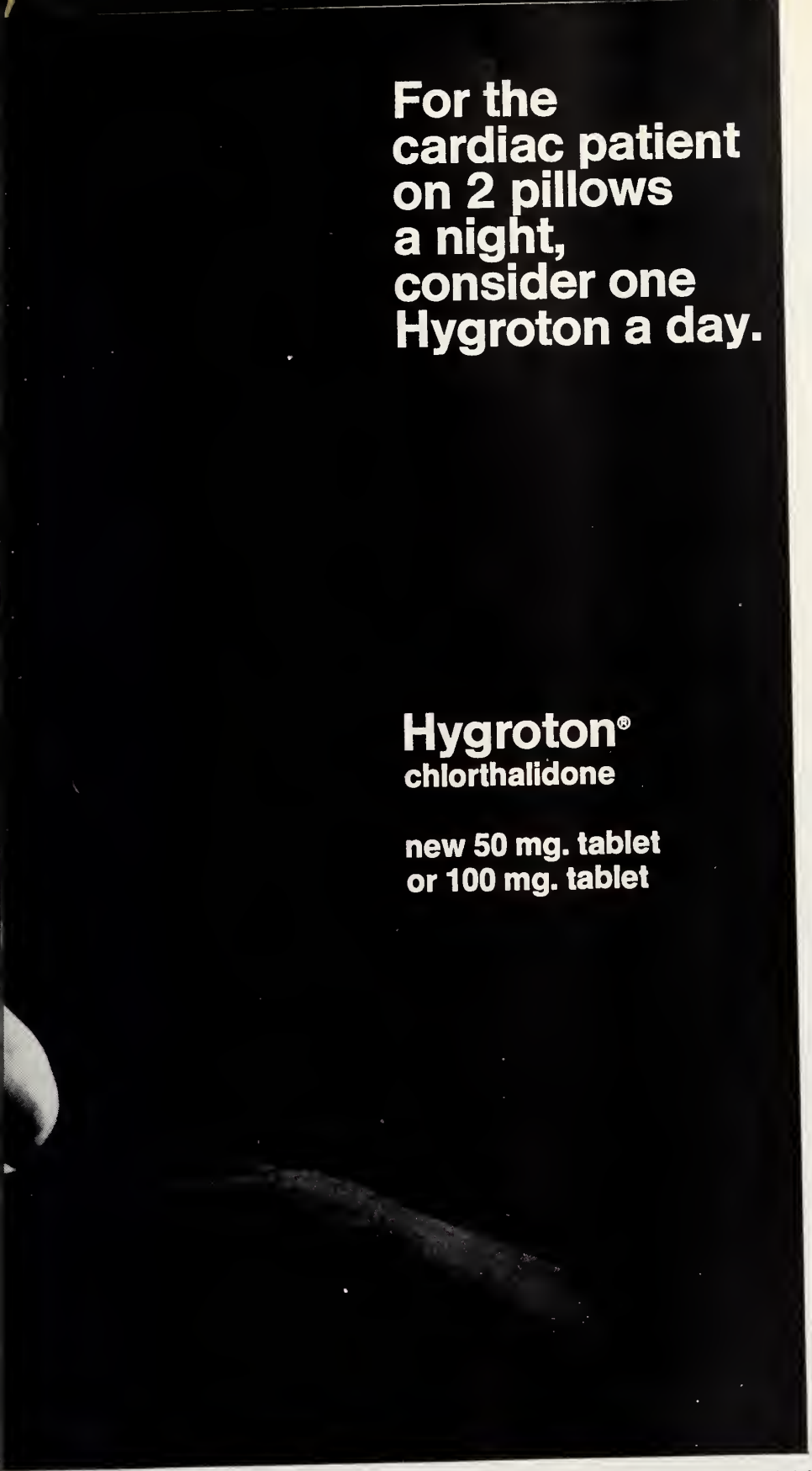
each one can give him all-day or all-night relief

SK&F Smith Kline & French Laboratories



Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur.
Use with caution in pregnant patients, since the drug may cross the placental barrier and adverse reactions which may occur in the adult (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn.
Precautions: Antihypertensive therapy with Hygroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents or other potent antihypertensive drugs, or curare.
Reduce dosage of concomitant antihypertensive agents by at least one-half. Barbiturates, narcotics or alcohol may potentiate hypotension. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated.
Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Hygroton should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.
Take special care in cirrhosis or

For the cardiac patient on 2 pillows a night, consider one Hygroton a day.



Hygroton®
chlorthalidone

new 50 mg. tablet or 100 mg. tablet

She was the picture of arteriosclerotic heart disease in failure.
She couldn't sleep a wink without an extra pillow.
Then her doctor prescribed digitalis and Hygroton.

First, her cardiac output improved.
Then her breathing improved—
along with her urinary output.

Nights could be a lot more pleasant for patients like this in your practice.
Try it and see.

Hygroton therapy may also mean troublesome side effects for certain patients.
A summary of essential prescribing information is shown below.

severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.
Adverse Reactions: Nausea, gastric irritation, vomiting, anorexia, constipation and cramping, dizziness, weakness, restlessness, hyperglycemia, hyperuricemia, headache, muscle cramps, orthostatic hypotension, aplastic anemia, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization.
Average Dosage: 50 or 100 mg. with breakfast daily or 100 mg. every other day.
Availability: White, single-scored tablets of 100 mg. and aqua tablets of 50 mg., in bottles of 100 and 1000.
(B)R46-230-D
For full details, please see the complete prescribing information.

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York 10502
HY-5405S



The relief received from the first Trocinate 400 mg. tablet is so prompt that the discomfort of diarrhea ceases to be a bother. May be repeated every four hours.

Upon request, a supply of Trocinate 400 mg. with literature will be sent to physicians for their personal use.

WM. P. POYTHRESS & CO., INC.
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Manufacturers of ethical pharmaceuticals since 1856



(Continued from Page 690)



William Arthur Sims, M. D., University of Tennessee College of Medicine, 1961, Reciprocity with Tennessee—Located in Decatur.



William Matthew Vinson, M. D., University of North Carolina School of Medicine, 1954, Reciprocity with North Carolina —Located in Birmingham.



Stuart Kenneth Bean, M. D., University of Buffalo School of Medicine, 1961, Reciprocity with National Board of Medical Examiners—Located in Birmingham.



Willard J. Blankenship, M. D., Vanderbilt University School of Medicine, 1959, Reciprocity with Tennessee—Intends to locate in Birmingham.



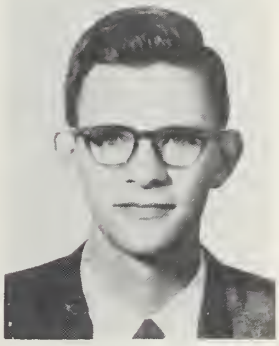
Louis Brahan, M. D., Jefferson Medical College, Philadelphia, 1955, Reciprocity with Pennsylvania—Intends to locate in Tuscaloosa.

(Continued on Page 699)

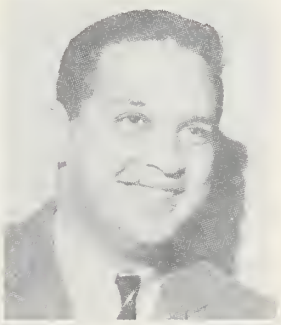
(Continued from Page 694)

Walter Lee Cloyd, M. D., University of Tennessee College of Medicine, 1945, Reciprocity with Tennessee—Intends to locate in Birmingham.



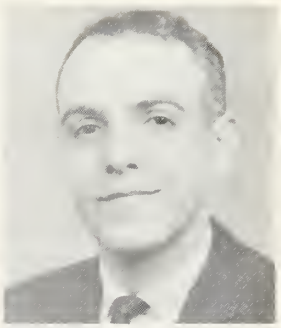


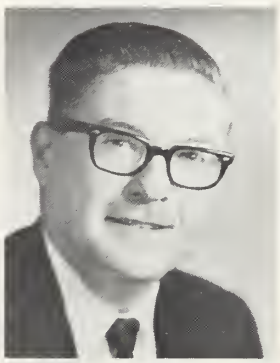
Wilbur Foster Eich, III, M. D., Tulane University School of Medicine, 1964, Reciprocity with Louisiana—Intends to locate in Union Springs after completion of residency.



Frank Jack George, M. D., Louisiana State University School of Medicine, 1962, Reciprocity with Louisiana—Intends to locate in Huntsville.

Paul Anthony Palmisano, M. D., University of Cincinnati College of Medicine, 1956, Reciprocity with Ohio—Intends to locate in Birmingham.





John William Russell, M. D., Western Reserve University School of Medicine, 1954, Reciprocity with Ohio—Intends to locate in Jasper.



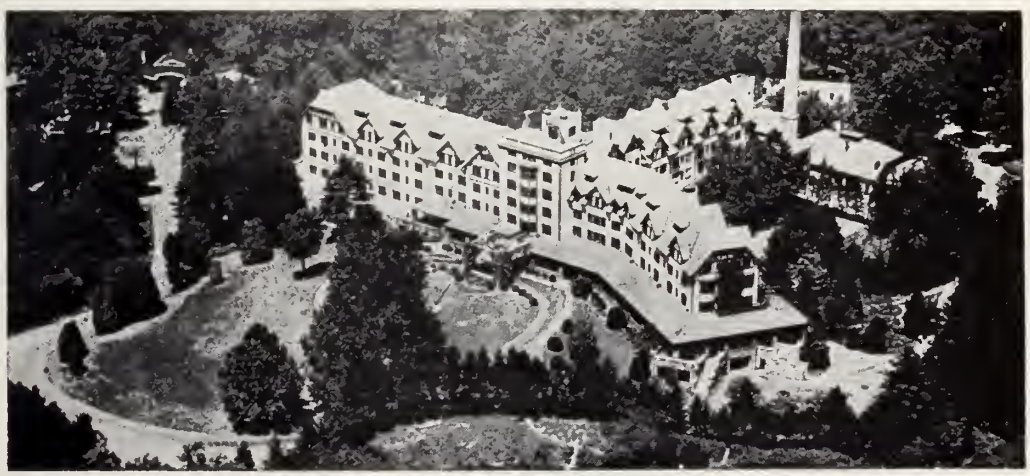
Leon Howard Ratliff, M. D., University of Tennessee College of Medicine, 1956, Reciprocity with Mississippi—Intends to continue living in Belmont, Miss., and operate in Red Bay Hospital.

(See Next Page)

APPALACHIAN HALL

ESTABLISHED 1916

ASHEVILLE NORTH CAROLINA



An institution for the diagnosis and treatment of psychiatric and neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin coma, electroshock and psychotherapy are employed. The institution is equipped with complete laboratory facilities, including electroencephalography and x-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin, Jr., M. D.
Robert A. Griffin, M. D.

Mark A. Griffin, Sr., M. D.
Mark A. Griffin, Jr., M. D.



Thomas Murphy Scruggs, M. D., Johns Hopkins University School of Medicine, 1957, Reciprocity with Minnesota—Located in Winfield.



Jack Milton Senter, M. D., Southwestern Medical College, 1949, Reciprocity with Mississippi—Intends to continue living in Belmont, Miss., and operate in Red Bay Hospital.



William Joseph Bean, M. D., Indiana University School of Medicine, 1965, Reciprocity with Indiana—Intends to locate in Montgomery (Maxwell AFB).



James Webb Hunter, Jr., M. D., Vanderbilt University School of Medicine, 1961, Reciprocity with Tennessee—Located in Florence.



Edward Dwayne Miller, M. D., Indiana University School of Medicine, 1954, Reciprocity with Indiana—Intends to locate in Birmingham.



James Conlee Pickens, M. D., The Medical College of Alabama, 1962, Reciprocity with Florida—Intends to locate in Birmingham.

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HOSPITAL
(Formerly Hill Crest Sanitarium)

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HOSPITAL
BIRMINGHAM, ALABAMA

Karl Frederick Sauer, M. D., University of Arkansas School of Medicine, 1962, Reciprocity with Arkansas—Intends to locate in Mobile.



Jack Lee Gumbert, M. D., University of Cincinnati College of Medicine, 1961, Reciprocity with Ohio—Intends to locate in Enterprise (Fort Rucker).





Edward William Brink, M. D., The George Washington University School of Medicine, 1964, Reciprocity with the National Board of Medical Examiners—Intends to locate in Birmingham.

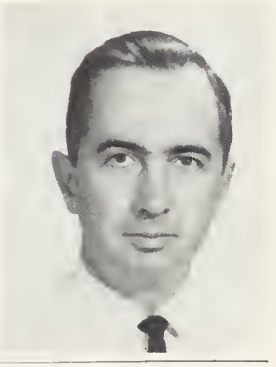


J. T. May, M. D., University of Arkansas School of Medicine, 1944, Reciprocity with Arkansas—Located in Opelika.

Gerald William Edmonds, M. D., University of Colorado School of Medicine, 1942, Reciprocity with Colorado—Intends to locate in Anniston.



Herbert Sheppard Street, M. D., Vanderbilt University School of Medicine, 1955, Reciprocity with Tennessee—Intends to locate in Decatur.



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Assistant Professor of Psychiatry and Medical Director
Area Code 704 - 253-2761

Vital Statistics

NEW MEMBERS

Escambia County

Robinson, Thomas Hilliard, 209-7th Avenue, Atmore, Ala. 36502.

Lauderdale County

Hunter, James Webb, Jr., 332 W. Tennessee St., Florence, Ala. 35630.

Lyon, David Beekley, 206 S. Pine St., Florence, Ala. 35630.

Pickens County

Sanford, Jon Emory, Gordo, Ala. 35466.

MEMBERS REMOVED OR DECEASED

Covington County

Holley, John Franklin, Florala, Ala. 36442—deceased September 28, 1967.

Lawrence County

Irwin, Robert Price, Moulton, Ala. 35650—deceased August 12, 1967.

Marshall County

Doster, Gaile Lawton, P. O. Box 308, Guntersville, Ala. 35976—deceased.

CHANGE OF ADDRESS

Jefferson County

Cline, Wade Martin, present Birmingham, Ala. 35205, to 1032 S. 18th St., Birmingham, Ala. 35205.

Pardue, William O., Jr., present Birmingham, Ala. 35207, to Box 2603, Birmingham, Ala. 35201.

Samuels, Joseph W., Jr., present Ensley, Ala. 35208, to 1630-4th Ave. N., Birmingham, Ala. 35203.

Windsor, James L., present, Birmingham, Ala. 35234, to 1229 Woodfall Dr., Bessemer, Ala. 35020.

Madison County

Carter, William W., present Huntsville, Ala. 35801, to 821 Gallatin Street, Huntsville, Ala. 35801.

Corley, William S., present Huntsville, Ala. 35801, to 1330 Toney Drive, Huntsville, Ala. 35802.

Morgan County

Copeland, Sage D., present Decatur, Ala. 35601, to 2316 Hartselle Rd. S. E., Decatur, Ala. 35601.

Tallapoosa County

Meigs, Lamar C., present Dadeville, Ala. 36853, to AP2 Colonial Apt., Beach Street, Ashland, Kentucky 41107.

Tuscaloosa County

Fowler, Inez, present University, Ala. 35486, to 410-15th St. E., Tuscaloosa, Ala. 35401.

TRANSFERS

Lauderdale County

Long, Robert Todd Liston, present Russellville, Ala. 35653, to 226 W. Tennessee St., Florence, Ala. 35630. (Transfer from member Franklin County to Lauderdale County Medical Society.)

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

County Society Meetings

CALHOUN COUNTY

Dr. Gaston McGinnis, president of the Calhoun County Medical Society, presided at the October meeting at the Anniston Memorial Hospital. Twenty-two members were present.

New members elected to the society are: Dr. Robert Elliot, Dr. J. Patrick Stewart, Dr. Gerald Edmonds, Dr. S. R. Smith, and Dr. Dan McClary.

MONROE COUNTY

A scientific meeting was held by the Monroe County Medical Society in October at the Monroe County Hospital. Dr. R. A. Smith, Jr., presided. Ten members were present.

Dr. John Shriner spoke on "Allergies in Pediatrics."

BALDWIN COUNTY

The Baldwin County Medical Society met in October at the Thunderbird Inn. Dr. John Foster, president, presided. Fifteen members were present. Dr. Lamar Rencher, pathologist from Mobile spoke on "Coroner's, pathologist's and physician's responsibilities."

Officers will be elected at the next meeting.

CRENSHAW COUNTY

Dr. James E. Kendrick presided at the October meeting of the Crenshaw County Medical Society at the Crenshaw County Hospital. Three members were present.

Principal speaker was Mr. M. B. Plouden, Hospital Administrator.

COFFEE COUNTY

The Coffee County Medical Society met in November at the Elba General Hospital with Dr. Wendell Vickers, president, presiding. Twelve members were present.

Dr. James Paulk spoke on "Medical Aspects of the Vietnam War."

Dr. Paulk was also elected as a new member of the Society.

MARSHALL COUNTY

The Marshall County Medical Society met in October at Val-Monte, Guntersville, Alabama with Dr. L. F. Corley, Jr., president, presiding. Fourteen members were present.

Dr. C. K. Meador, Birmingham, was the principal speaker. His topic was "Office Guide Evaluation of Diseases Responsive to Steroids."

Dr. Robert R. Roper was elected a new member.

CULLMAN COUNTY

Dr. J. G. Daves, president, presided at the November meeting of the Cullman County Medical Society. Ten members were present.

Dr. William H. Kessler, Birmingham, gave a short informal lecture relative to an Intensive Care Unit. Following the lecture there was a general discussion and a question and answer period.

Election of officers will be held in December at the regular meeting of the Society.

HOUSTON COUNTY

The Houston County Medical Society met in October in Dothan with Dr. Frank Stephens, president, presiding. Fourteen members were present. This was a business meeting.

Dr. W. B. Hansen was elected a new member.

ESCAMBIA COUNTY

Dr. Robert Smith, president of Escambia County Medical Society, presided at the October meeting in Brewton.

This was a joint Attorney-Physician Meeting, with Dr. and Attorney Carl Robinson of Bessemer as the principal speaker. Dr. Robinson spoke on "Co-operation."

Twelve members of the society were present.

If it doesn't work in a week, forget it.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently. Large doses of Butazolidin alka are contraindicated in glaucoma.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Instances of severe bleeding have occurred. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Before prescribing, carefully select patients, avoiding those responsive to routine measures as well as contraindicated patients. Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should not exceed recommended dosage, should be closely supervised and should be warned to discontinue the drug and report immediately if fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage occur. Make regular blood counts. Discontinue the drug immediately and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. Swelling of the ankles or face may be minimized by withholding dietary salt, reduction in dosage or use of diuretics. In elderly patients and in those with hypertension the drug should be discontinued with the appearance of edema. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. The patient should be instructed to take doses immediately before or after meals or with milk to minimize gastric upset. Mild drug rashes frequently subside with reduction of dosage. However, rash accompanied by fever or other systemic reactions usually requires withholding medication. Purpuric rash has also been reported. Agranulocytosis, ex-

In rheumatoid arthritis, Butazolidin alka needs only a week's trial. If it doesn't work in a week, forget it.

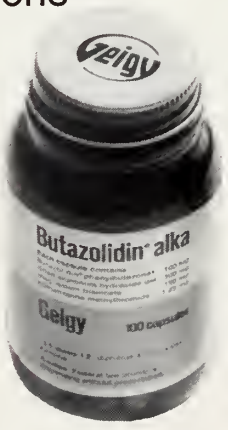
A short trial period may spare patients weeks of discomfort. That's one reason why Butazolidin alka seems a good choice when aspirin fails.

It's not for every patient. Check carefully the Contraindications, Warning, and Precautions shown below.

And adverse reactions may occur. The most common are nausea, edema and rash. Rarely, agranulocytosis has been reported. All adverse reactions are listed below, too.

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And most of the time, it will.



foliative dermatitis, Stevens-Johnson syndrome, or a generalized allergic reaction similar to serum sickness may occur and require permanent withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Rheumatoid Arthritis: Initial: 3 to 6 capsules or tablets daily in 3 or 4 equal doses. Trial period: 1 week. Maintenance dosage should not exceed 4 capsules or tablets daily; response is often achieved with 1 or 2 capsules or tablets daily.

6509-V(B)R2

For complete details, please see full prescribing information.

Butazolidin® alka

Capsules: phenylbutazone, 100 mg.; dried aluminum hydroxide gel, 100 mg.; magnesium trisilicate, 150 mg.; homatropine methylbromide, 1.25 mg.

Also available: Butazolidin®, phenylbutazone: Tablets of 100 mg.

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For acute, non-specific diarrheas **Donnagel® -PG** (Donnagel with paregoric equivalent). Donnagel formula plus powdered opium, USP, 24.0 mg. (equivalent to paregoric 6 ml.) (warning: may be habit forming). Alcohol, 5%.

All the antidiarrheal benefits of paregoric without the unpleasant taste. Real banana flavor makes it acceptable, even to children. See product literature before prescribing.

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Non-narcotic for 6-8 hour cough control
ROBITUSSIN®-DM
Each 5 cc. contains:
Glyceryl guaiacolate 100 mg.
Dextromethorphan hydrobromide . 15.0 mg.
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New! Clears sinuses and nasal stuffiness as it relieves cough
ROBITUSSIN®-PE
Each 5 cc. contains:
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Recommendation of The Public Health Service Advisory Committee on Immunization Practices

The Public Health Service Advisory Committee on Immunization Practices meeting on May 26, 1967, issued the following recommendation regarding influenza immunization and control in the civilian population. (Reprinted from MMWR, Vol. 16, No. 26, July 1, 1967)

INFLUENZA—1967-68

Influenza Prospectus—1967-68—United States

During the winter and spring of 1966-67, the influenza reported in the United States was limited to minor outbreaks and individual cases. Type A2 influenza virus was recovered only from several small outbreaks in the eastern States. Type B virus was identified in the Southwest, particularly in California and Arizona. Excess mortality attributed to pneumonia and influenza did not reach the national "epidemic threshold" at any time, and it did not remain elevated for more than a single week in any of the country's geographic divisions.

No significant antigenic changes were demonstrated in the relatively few strains of type A2 influenza virus recovered during the year in the United States and abroad. Type B strains were similar to those isolated in the 1965-66 season but did show antigenic differences from earlier type B strains.

The relatively little disease caused by A2 influenza viruses in the 1966-67 season permitted the general level of susceptibility to increase, particularly in the eastern States where the last major outbreaks of A2 illness were observed in 1964-65. Thus, substantial numbers of cases of A2 influenza can be expected to occur during the 1967-68 season, especially in the eastern part of the country. Because in 1965-66 and 1966-67 most areas of the United States experienced type B influenza caused by strains related to those still prevalent, no significant amount of type B infection is likely to occur in the coming year.

Influenza Viruses and Vaccine Formulation

Influenza viruses are known to undergo continual antigenic change. Minor variations, as discerned by laboratory procedures, occur frequently. Moderate changes can result in increased numbers of influenza cases, presumably on the basis of the population's heightened susceptibility to the variant. Major antigenic shifts occur infrequently. When they do, they may produce widespread or even pandemic disease. The most recent major type A influenza virus variant is the A2 (Asian) strain which appeared in 1957.

The protection afforded by a particular influenza vaccine antigen, like that conferred by natural infection, is directed primarily against the same or similar infecting strains. This relationship has been most easily observed at the time of major antigenic shifts, although the relative effectiveness of vaccines may also be reduced when less marked changes occur.

During the 25 years since development of inactivated influenza vaccines, the appearance of three major antigenic variants emphasizes the need for regular up-dating of vaccine formulations. When A1 influenza virus appeared in the United States in 1947, vaccine containing only A antigen gave very little protection. Similarly, marked ineffectiveness of type A1 antigen was observed in 1957 when the A2 strain appeared; and when an essentially distinct strain of type B influenza virus appeared in 1954, vaccines containing the previous type B strains were no longer satisfactory.

In general, it has been recognized that the

relative effectiveness of influenza vaccine depends on the degree of similarity between strains incorporated in the vaccine and the viruses prevalent in the community. Yearly review of epidemiologic and laboratory data on vaccines and prevalent viruses is required to ensure that the proposed vaccine formulation is suitable for the next year's forecast.

Influenza Vaccines—1967-68

Two influenza vaccine formulations will be available for use in the 1967-68 season. A newly introduced *bivalent vaccine* containing only contemporary A2 and B strains is for general use to provide greater protection against current strains of influenza. The traditional *polyvalent vaccine* incorporates older strains (types A and A1) as well as newer A2 and B antigens in order to stimulate a broader immunologic response. The older strains do not play a significant role against the currently prevalent viruses.

Both the bivalent and polyvalent vaccine formulations contain the same total quantity of influenza antigens—600 chick cell agglutinating (CCA) units. This limit is set in order to minimize the frequency of local and systemic reactions. The bivalent vaccine includes considerably greater representation of contemporary A2 and B strains than is possible in polyvalent vaccine which retains A and A1 antigens. Bivalent vaccine should provide greater protection against current strains of influenza than has previously been possible.

The A2 strains included in both vaccine formulations are the same as were used in 1966-67. Because of antigenic changes in prevalent type B strains, however, B/Maryland/1/59 has been replaced by B/Massachusetts/3/66.

Bivalent (A2 and B Strains) Influenza Virus Vaccine—1967

Type	Strain	CCA units per ml
A2	Japan/170/62	150
	Taiwan/1/64	150
		300
B	Massachusetts/3/66	300
Total		600

Polyvalent (A,A1,A2, and B Strains) Influenza Virus Vaccine—1967

Type	Strain	CCA units per ml
A	PR/8/34	100
A1	Ann Arbor/1/57	100
A2	Japan/170/62	100
	Taiwan/1/64	100
		200
B	Massachusetts/3/66	200
Total		600

Vaccine Usage

Annual influenza immunization is not currently indicated for all individuals, but should be given to persons in groups known to experience high mortality from epidemic influenza. In particular, immunization with bivalent vaccine is recommended for persons in older age groups and for all individuals with chronic illnesses such as those discussed below:

Chronically Ill

Persons of all ages who suffer from chronic debilitating diseases including cardiovascular, pulmonary, renal, or metabolic disorders; in particular:

1. Patients with rheumatic heart disease, especially with mitral stenosis.

2. Patients with such cardiovascular disorders as arteriosclerotic heart disease and hypertension, especially showing evidence of frank or incipient cardiac insufficiency.

3. Patients with chronic bronchopulmonary diseases such as asthma, chronic bronchitis, bronchiectasis, pulmonary fibrosis, pulmonary emphysema, or pulmonary tuberculosis.

4. Patients with diabetes mellitus and Addison's disease.

Older Age Groups

During major influenza outbreaks, especially those caused by type A viruses, increased

mortality has regularly been recognized in persons over 45 years of age and even more notably in those over 65. This association has been particularly marked when underlying chronic illnesses were also evident.

Persons in Institutions

Patients residing in nursing homes, chronic disease hospitals, and comparable environments should be considered at particular risk since their living arrangements may allow greater spread of diseases once an outbreak has been established.

Some increased mortality was observed among pregnant women during the 1957-58 influenza A2 epidemic both in this country and abroad. Subsequently, there has been no indication of increased risk. Routine influenza immunization during pregnancy is not recommended unless the individual also falls into one of the "high risk" categories noted above.

Physicians contemplating general vaccination programs for industrial, school, and other such groups must weigh the expense of the programs against the likelihood of extensive illness. When widespread epidemics of influenza are forecast, officials responsible for maintaining community services are justified in recommending the use of influenza vaccine in selected adult groups if above-average levels of absenteeism would disrupt satisfactory operations.

Dosage and Schedule

Persons Not Vaccinated Since July 1963

Persons who require immunization and have not been vaccinated since July 1963 should receive a primary immunization series of bivalent vaccine. The primary series consists of an initial subcutaneous dose, followed by a second, two months later. It may be noted that even a single dose can afford some protection. A second injection as early as two weeks after the first one will enhance the antibody response.

Immunization should begin as soon as practicable after October 1 and ideally should be completed by early December. It is important that immunization be carried out before influenza occurs in the immediate area, because there is a two-week interval between vaccination and maximal development of antibodies.

Summary

Adults and children 10 and older

1.0 ml subcutaneously on two occasions as specified above.

Children 6 to 10 years*

0.5 ml subcutaneously on two occasions as specified above.

Children 3 months to 6 years*

0.1-0.2 ml of vaccine given subcutaneously on two occasions, separated by one to two weeks followed by a third dose of 0.1-0.2 ml about two months later.

Persons Vaccinated After July 1963

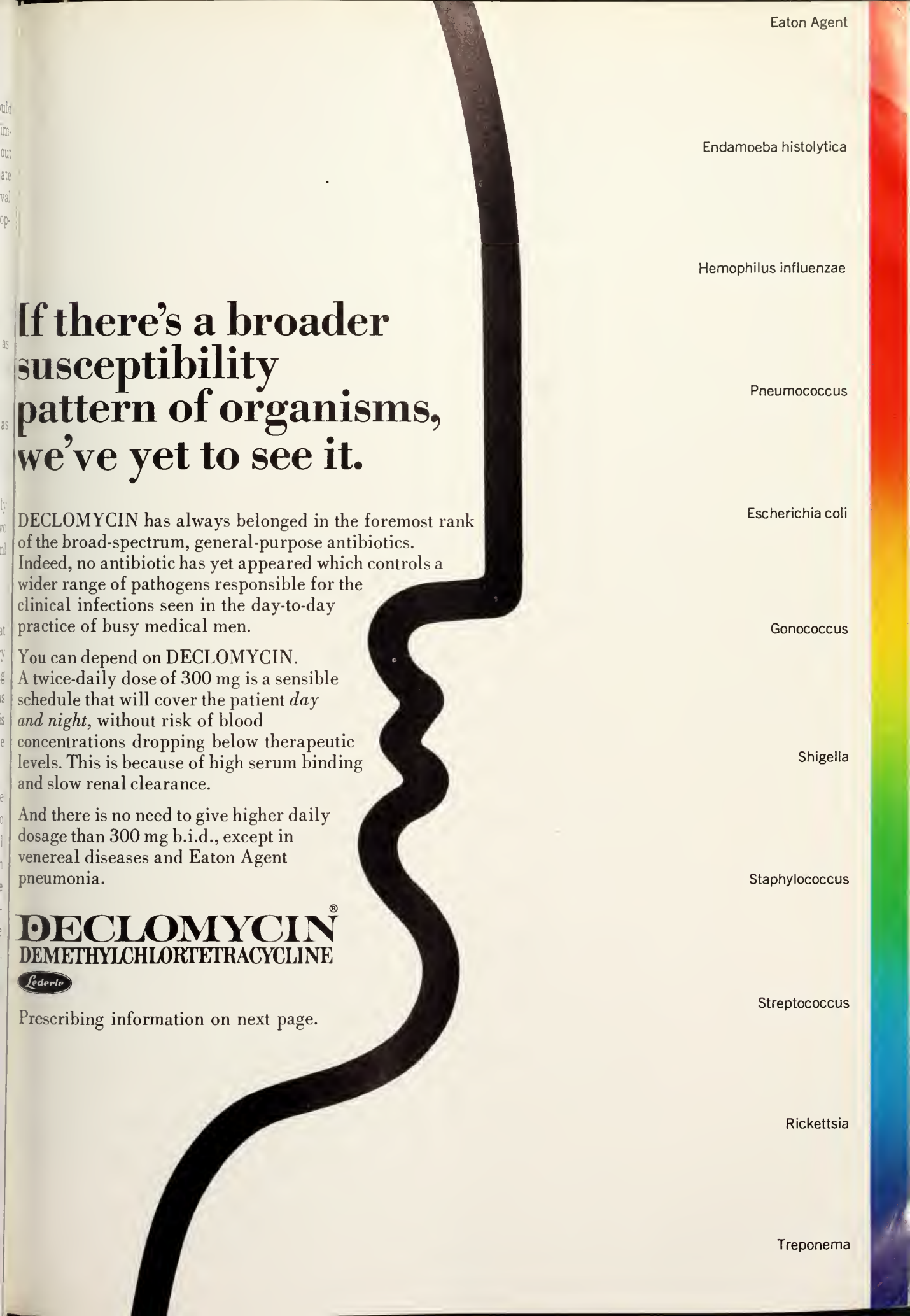
Only a single booster of bivalent vaccine at the dosage level specified for the primary series is necessary for individuals requiring immunization who have been vaccinated as recently as July 1963. This booster dose is best given in early December, before the onset of the anticipated influenza season.

For those in older age groups who have previously experienced undue reactions to influenza vaccine, a booster dose of 0.1 ml given by careful intracutaneous injection can be expected to induce an antibody response which is somewhat comparable to that induced by the 1.0 ml subcutaneous dose. The intracutaneous route is not recommended, however, in other circumstances.

Contraindication

Since the vaccine viruses are propagated in eggs, the vaccine should not be administered to anyone who is hypersensitive to eggs or egg products.

*Since febrile reactions in this age group are common following influenza vaccination, an antipyretic may be indicated.



If there's a broader susceptibility pattern of organisms, we've yet to see it.

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You can depend on DECLOMYCIN. A twice-daily dose of 300 mg is a sensible schedule that will cover the patient *day and night*, without risk of blood concentrations dropping below therapeutic levels. This is because of high serum binding and slow renal clearance.

And there is no need to give higher daily dosage than 300 mg b.i.d., except in venereal diseases and Eaton Agent pneumonia.

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DEMETHYLCHLORTETRACYCLINE

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Eaton Agent

Endamoeba histolytica

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Pneumococcus

Escherichia coli

Gonococcus

Shigella

Staphylococcus

Streptococcus

Rickettsia

Treponema

If there's a broader susceptibility pattern of organisms, we've yet to see it.

DECLOMYCIN Demethylchlortetracycline should be equally or more effective therapeutically than other tetracyclines when the offending organisms are tetracycline-sensitive.

Contraindication: History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions—Overgrowth of nonsusceptible organisms may occure. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

In the treatment of syphilis a dosage schedule of a total of 12 to 18 Gm. given in equally divided doses over a period of 10 to 15 days should be followed. Close follow-up observation of the patient is recommended, including appropriate laboratory tests, since demethylchlortetracycline has not had adequate evaluation in all stages of syphilis. Spinal fluid examination should be included as part of this follow-up.

Acute gonococcal anterior urethritis in males has been treated effectively with a single dose of 600-900 mg. of DECLOMYCIN Demethylchlortetracycline. Individuals unable to tolerate large single doses due to gastrointestinal side effects may be treated with 150 mg. every 6 hours for a minimum of 4 doses or 300 mg. every 12 hours for a minimum of 2 doses. Females should be treated with a dosage of 150 mg. every 6 hours or 300 mg. every 12 hours until a cure is affected.

Primary Atypical Pneumonia (Eaton Agent): The average adult daily dosage is 900 mg. in 3 divided doses for six days.

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Triaminic® (phenylpropanolamine hydrochloride 25 mg., pheniramine maleate 12.5 mg., pyrilamine maleate 12.5 mg.)	50 mg.
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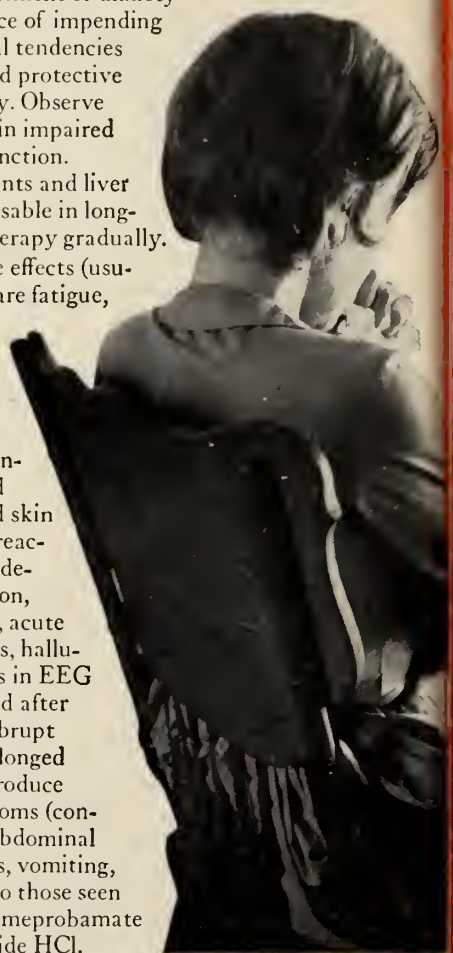


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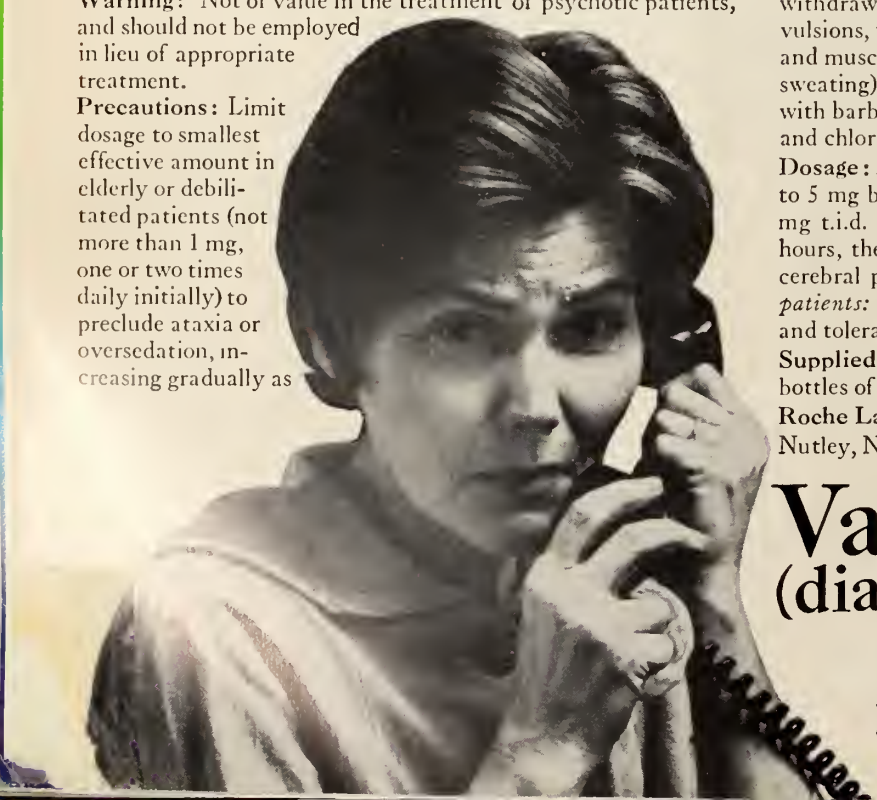


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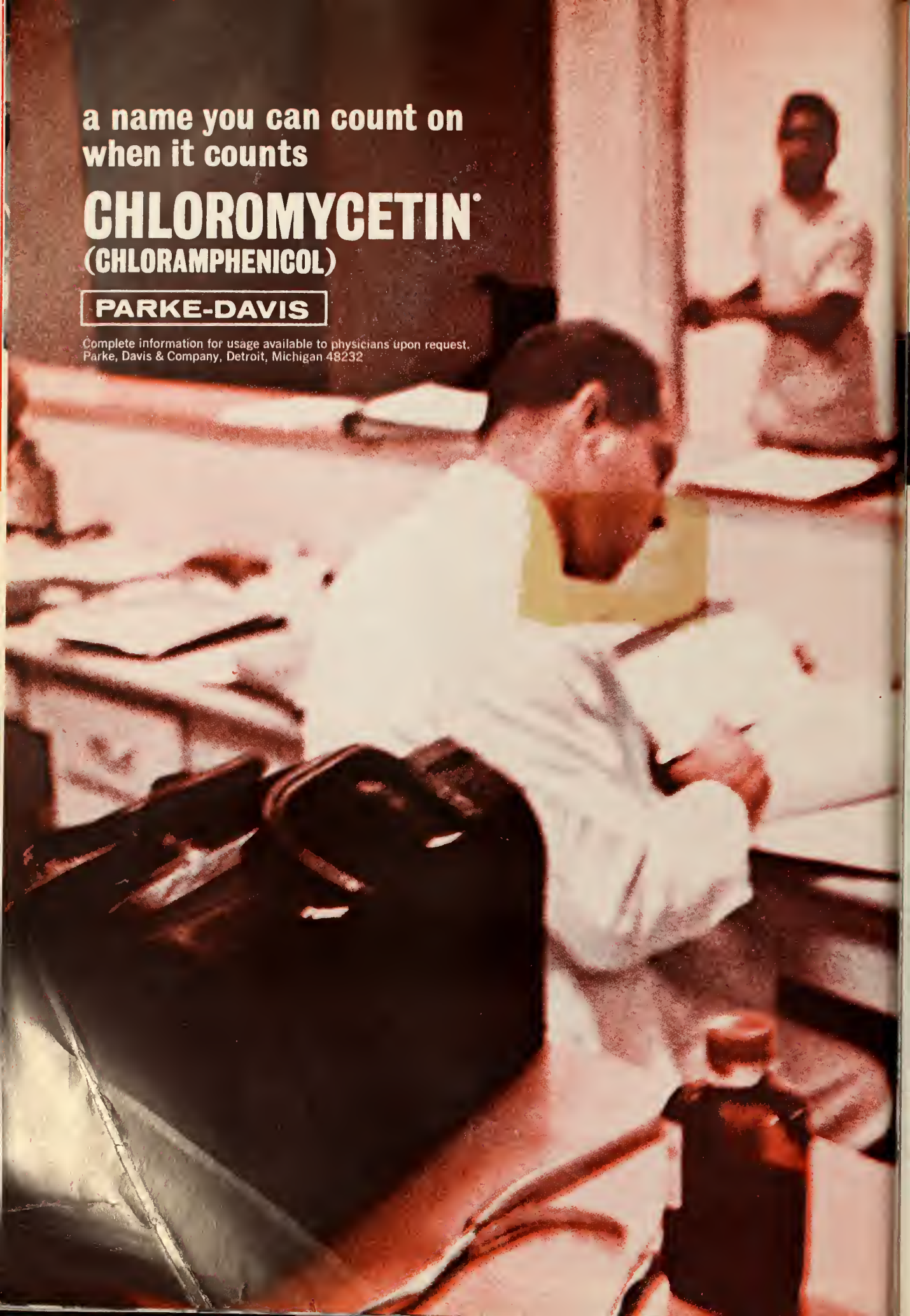
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(1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., *38*:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • January, 1968 • No. 7

Office of Publication
19 So. Jackson St. Montgomery, Ala. 36104
Subscription Price $5.00 Per Year
$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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Precautions—Overgrowth of nonsusceptible organisms may occure. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth— dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

In the treatment of syphilis a dosage schedule of a total of 12 to 18 Gm. given in equally divided doses over a period of 10 to 15 days should be followed. Close follow-up observation of the patient is recommended, including appropriate laboratory tests, since demethylchlortetracycline has not had adequate evaluation in all stages of syphilis. Spinal fluid examination should be included as part of this follow-up.

Acute gonococcal anterior urethritis in males has been treated effectively with a single dose of 600-900 mg. of DECLOMYCIN Demethylchlortetracycline. Individuals unable to tolerate large single doses due to gastrointestinal side effects may be treated with 150 mg. every 6 hours for a minimum of 4 doses or 300 mg. every 12 hours for a minimum of 2 doses. Females should be treated with a dosage of 150 mg. every 6 hours or 300 mg. every 12 hours until a cure is effected.

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President's Page



Dr. E. Bryce Robinson, Jr.

"Health Manpower"

Health manpower is one of the most important and urgent subjects with which the medical profession has to deal today. This involves not only increasing the supply of physicians but also nurses (LPN, associate degree, diploma schools and degree programs), and members of the Allied Health Professions and Services. At the recent meeting of the House of Delegates of the AMA in Houston, an important action was taken in this area and this is the establishment of a new "Council On Allied Health Professions and Services." One of their prime responsibilities is to direct their efforts towards increasing the supply of people in this area. We hear constant discussion also about physician's assistants and various health technicians in the health care field. About a year ago, the AMA Board of Trustees set up a special Ad Hoc Committee on Health Manpower, and this committee is headed by Dwight L. Wilbur, M. D., President-Elect of the AMA. By June, 1968, we expect a final report from them.

Released in late November, 1967, was a report, "Expansion of Medical Education Programs in the State of Alabama." This was submitted by the management consultant firm of Booz, Allen and Hamilton, Inc., pursuant to Act 283 of a special Legislative session in 1966. Early in this report one sees that "Alabama faces a very severe deficit in the number of physicians it needs today, as well as in the future. Efforts to remedy the situation will need to be both rapid and comprehensive if significant improvement can be expected." There is only one state in the Union that has less physicians per 100,000 population than does Alabama, and it is Alaska. Actually we have less physicians per 100,000 population now than we had 37 years ago. The report indicates that Alabama needs an additional 1100 physicians today!

The Booz, Allen and Hamilton report, in its recommendations, suggests that for Alabama to expand its medical education and the supply of medical manpower, it should meet four critical tests. They are: 1) expand the number of physicians in the state substantially, 2) add to the supply of physicians as soon as possible, 3) provide for high standards of education, and 4) meet national requirements

for standards of education. To meet objectives of this state they should provide programs of appropriate scope and depth; should be able to attract applicants and the necessary faculty; should be able to attract a number and variety of patients required to achieve medical school objectives; should be able to supply adequate facilities for instruction, research, and patient care needs, and should establish and maintain sound external relationships. To accomplish this, they suggest the Medical College expand each of its classes to 125 students as rapidly as possible, at the latest by 1971. They also propose that we eventually have a four-year medical school in Mobile; have additional basic science facilities in Tuscaloosa, and develop plans for a clinical science program for third and fourth-year students at Huntsville.

We fully realize that this involves a substantial increase in funds. However, this offers a great challenge to us in Alabama, and we should get on with this now. We must succeed! We cannot fail!

Also released late in November, 1967, was the report of President Johnson's "National Advisory Commission on Health Manpower." This is far reaching in its recommendations and implications and the medical profession has a vital interest in this. Among its recommendations, it deals with the following: supply of physicians, supply of dentists, supply of nurses, education of health professionals, improving the health-care system, conserving resources, improving the organizational framework, and response to changes in society, medicine and technology.

There is even the suggestion that professional societies and state governments should explore the possibility of periodic re-licensing of physicians and other health professionals.

It is imperative that each of you become thoroughly familiar with all the material referred to above, then let each of us diligently put our shoulder to the wheel to help solve the existing problems in health manpower so that we can continue to provide the highest quality and quantity of health services.

* * *

We wish for each and every one, a successful year during 1968.



E. Bryce Robinson, Jr., M. D.,
President, The Medical Association of the State of Alabama

Drugs Available in Vietnam

In Vietnam, as compared to World War II, the great speed with which wounded men are transported by helicopter to areas where they can receive professional attention, has reduced the death rate from wounds about 65 per cent, reports Lt. Col. Arthur Buswell, division surgeon, 1st Infantry Division. Another important factor is that "There are adequate drugs on hand at all times to cope with any clinical problem." One of the army surgeons noted that adequate supplies of all needed drugs are available, including the newer antibiotics, anesthetic agents and pain relievers. Primary disease among troops in the field is in the family of skin ailments caused by fungus and yeast organisms. For fungus diseases, the primary antibiotic used is griseofulvin, which attacks most of the fungus diseases, particularly those on the feet and groin. Upper respiratory infections are also quite common. They are treated with antihistamine drugs, antihistamine nose drops, and large quantities of fluids.—*Drug News Weekly*, Aug. 7, p. 4.



"All Interns are Alike"

It stands to reason. They all go through the same training; they all have to pass the same tests; they all have to measure up to the same standards; they all are underpaid, too. Therefore, all interns are alike.

That's utter nonsense, of course. But it's no more nonsensical than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

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You might also say that all interns aren't alike, either.



The Woman's Auxiliary

January is named for the Roman god, Janus, and according to legend, all the gates in Rome were under his care. The gates open both ways, and this god of gates was represented by an image having two faces, one looking forward and the other backward.

As we begin the New Year, we too, must look both forward and backward. The New Year gives us another chance to evaluate our activities, to take inventory of our accomplishments, and to determine what must be done in the months ahead.

As we look back at the months that have passed we are proud of the accomplishments of the Woman's Auxiliary. At the Convention in April, we chose as our theme "Meet The Challenges With Responsibility" and your wives, through dedicated service, have been making this theme become a reality.

During the month of October three District Workshops were held. Interest in the work of the Auxiliary was evident as more than 150 state and county officers and committee chairmen attended. We were fortunate to have Mr. Robert Ingram, Director of Alapac, speak at each of these, and Dr. Grover C. Murchison, President of the Alabama Chapter, American Academy of General Practice, speak on "The Why And How Of Sex Education" at one. We were honored with the presence of Dr. E. Bryce Robinson, President of MASA, at the Northeast District Workshop. We are indeed grateful to each of these gentlemen for taking time from their busy schedules to be with us.

During the Fall months hundreds of pounds of sample drugs and medical supplies have been collected for World Medical Relief, many Red Cross Ditty Bags for fighting men in Vietnam have been filled, and many children at Partlow State School have been assured a gift on Christmas morning as a result of the toys contributed by Auxiliary members.

Our accomplishments have been many, but as we look at the future we realize there is much to be done.

Contributions to AMA-ERF are ahead of last year at this time, but we are far from our goal of $15,000. We appreciate the help you have given by making your contribution through the Auxiliary.

The shortage of paramedical personnel is still the most vital thing affecting the health of our Nation, and we must continue to organize Medical Careers Clubs and sponsor Health Career Days in the High Schools.

Membership in ALAPAC is very small and we must make our members realize it is too late to stand alone—we must be united. We must be united through membership in ALAPAC, we must be informed on legislative issues, and we must work to preserve those conditions under which the physician can give the best possible medical care to those who choose him as their doctor.

Theodore Roosevelt once said, "We here in America hold in our hands the hope of the world, the fate of the coming years; and shame and disgrace will be ours if in our eyes the light of high resolve is dimmed, if we trail in the dust the golden hopes of men."

As we begin this New Year it is my hope that every physician's wife in Alabama will join the Auxiliary and work to preserve the health and happiness of all our people.

Best wishes to you and your family for a Happy New Year.

Kay Guin

Mrs. James C. Guin, Jr.
President



The Physician At The New Year

The first issue of the Journal in each new year appears to demand an editorial sentiment based on the problems and challenges which lie ahead. While this subject has been thoroughly delineated in previous issues, it perhaps is not amiss to call once again to the attention of the medical profession the fact that united effort will be required, even to a greater extent, in the days ahead.

President-Elect E. L. McCafferty, Jr., now is shaping his program for the orientation of new members on the opening date of the 1968 Annual Session. If reports of his plans are true, it appears that every Alabama physician, regardless of his tenure in this Association, would benefit from the program. It has been learned that Dr. McCafferty will endeavor for the first time to relate the physician and the entire practice of medicine to the total strata of life. He has taken cognizance of the fact that organized medicine no longer can concentrate its full attention on the scientific, but must involve itself in every activity which tends to influence or control the healing arts.

While it is well to inform the newly inducted members as to the mechanics of the county society, the State Association, and the American Medical Association, it is far more important to explain the responsibility of the individual to these organizations as well as those of each society to the other.

The physician who neglects his responsibilities as a member of the community, as a citizen, or to his faith, has committed the same error as if he neglected his patient or his family.

Government is not so complex that it is beyond the comprehension of the men of medicine. Nor, as recent events have proven, do the acts of those in authority fail to touch every practicing physician.

Let us therefore resolve at this moment that we will make whatever sacrifices are demanded of us to the end that the free and competent practice of medicine shall not be delivered into the hands of the untrained or those who would destroy it. Let us combine the intelligence of all physicians everywhere on behalf of the continued well being of mankind.

Progress In Mental Health

Alabama physicians stand with every citizen of this State in hopeful anticipation that the gracious lady into whose hands has been entrusted the helm of our State Government has now passed through her ordeal and will continue to exert her tremendous influence on behalf of the sick and afflicted of this Commonwealth.

No Governor in recent history has done more than Mrs. Lurleen Wallace to expose and correct the plight of Alabama's mentally and physically sick. With the assistance of such men in the Legislature as Lt. Governor Albert Brewer and House Speaker Rankin Fite, it is safe to assume that her efforts of

the past year will continue without abatement.

Unprecedented strides have been made in providing more adequate facilities for the mentally ill and the retarded.

The task of carrying into fruition the legislation which has been enacted now rests upon the State Board of Mental Health. This Board consists of seven physicians and six laymen. Its Chairman is Dr. Robert Parker of Montgomery, who served with distinction as a member and Chairman of the State Board of Censors. While he and the Board first opposed creation of a separate Department of Mental Health, unless physician-direction could be maintained, once this was accomplished the physicians on the Board entered into their responsibilities with enthusiasm.

With the wholehearted support of Mrs. Wallace, this Board will soon create a veritable network of institutions for care and treatment of the mentally afflicted. From Decatur on the north to Mobile on the south, and at appropriate geographic intervening sites, facilities will be erected dedicated to the premise that this State has a solemn responsibility for its citizens who, through no fault of their own, suffer the damnation of mental affliction.

Needed—A Careful Evaluation

Delegates recently returned from the Clinical Convention of the American Medical Association held in Houston, Texas, November 26-29, 1968, report tremendous displeasure among doctors of the State of New York over the trend of the Title XIX program in that state. This comes as no real surprise to the leadership of this Association. It is hardly more than two years ago when New York physicians stood by silently—or with only token protest—and watched their Legislature enact a Medicaid law which rocked the entire medical profession to its foundation.

It should surprise no one that a law which declared any person with an income of $6000 per year to be medically indigent should prove bankruptive in its application. The Legislature of New York State, in its zeal to socialize the medical profession, created no barriers to the total involvement of its indigent and not-so-indigent in Medicaid.

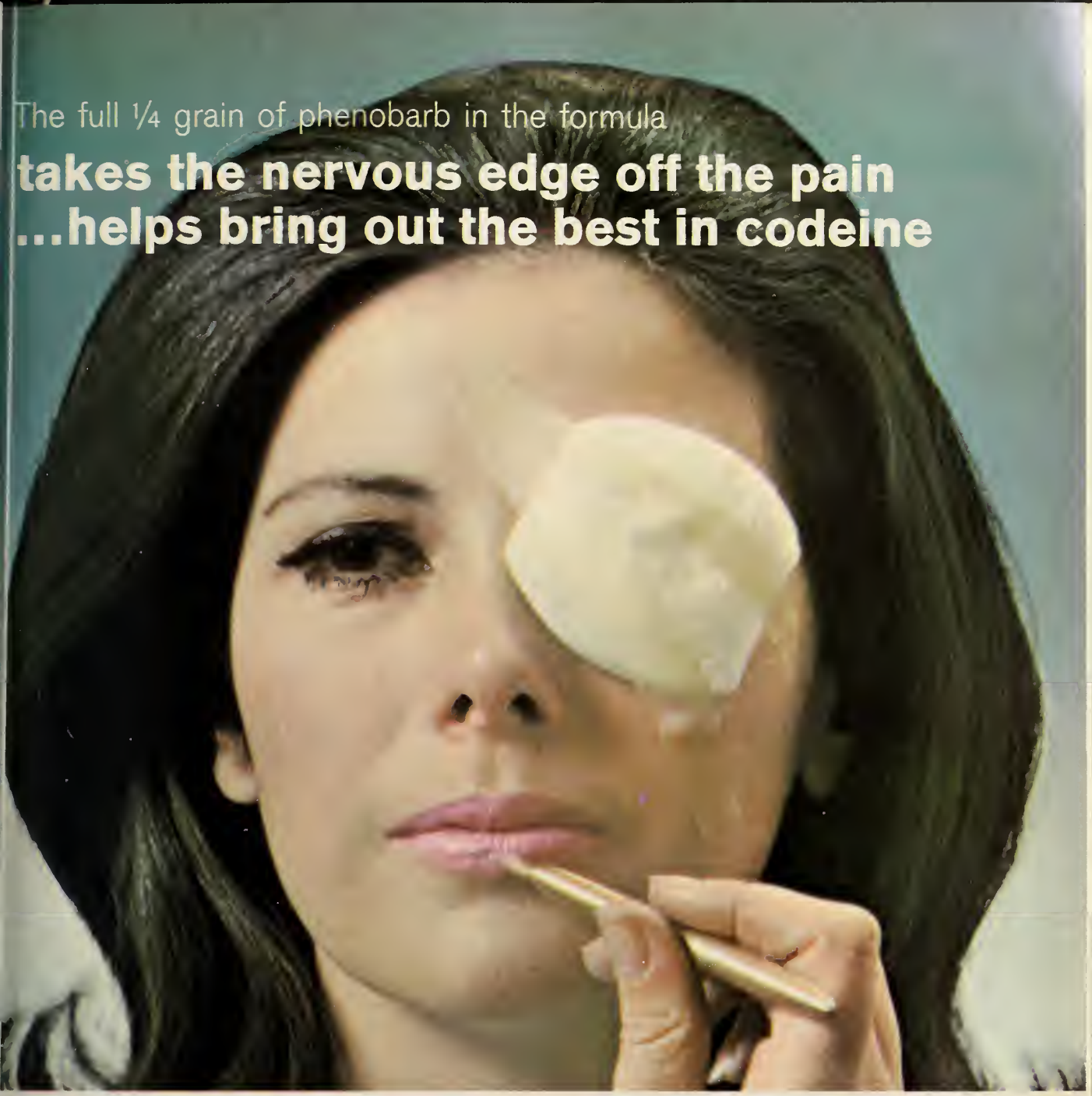
New York alone would have almost exhausted the entire Federal allocation for Medicaid funds. The pittance which might have remained was quickly cornered by the State of California which had enacted a Medicaid law only slightly less encompassing. By the time the physicians of New York and California realized the scope of the legislation, it was too late. Along with the State of Michigan, the three Medicaid programs have generated financial problems of disastrous proportions.

Attempts to bring the costs of these three programs into alignment with available revenues have failed. In California, the Courts have ruled that a program cannot be reduced in midyear; that benefits available in January must be available in December.

The experiences of New York, California and Michigan must not be wasted upon Alabama. While Federal law decrees that a Title XIX program shall be in effect by January 1, 1970, or the state will lose all Federal funds presently available for the indigent, the blind and the handicapped, there remains the necessity for a most careful evaluation of the needs of the State as compared to its resources.

No provider of health services can consider Title XIX as a blank check. The physician, the hospital, the nursing home, the corner druggist and all the other providers must sit down together in an atmosphere of mutual confidence and goodwill and make certain that the indigent sick of Alabama, and no others, shall receive the benefits to which they are justly entitled.

(Continued on Page 731)



Phenaphen with Codeine

the only leading compound analgesic that calms instead of caffeinates

Each capsule contains:

Phenobarbital (¼ gr.) 16.2 mg.
(Warning: may be habit forming)
Aspirin (2½ gr.) 162.0 mg.
Phenacetin (3 gr.) 194.0 mg.
Hyoscyamine sulfate.....0.031 mg.
Codeine phosphate.....¼ gr. (No. 2), ½ gr. (No. 3), 1 gr. (No. 4)
(Warning: may be habit forming)

Contraindications: Hypersensitivity to any ingredient.

Precautions: As with all phenacetin-containing products, avoid excessive or prolonged use.

Side Effects: Side effects are uncommon—nausea, constipation, and drowsiness have been reported.

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When the agitated businessman goes to work...

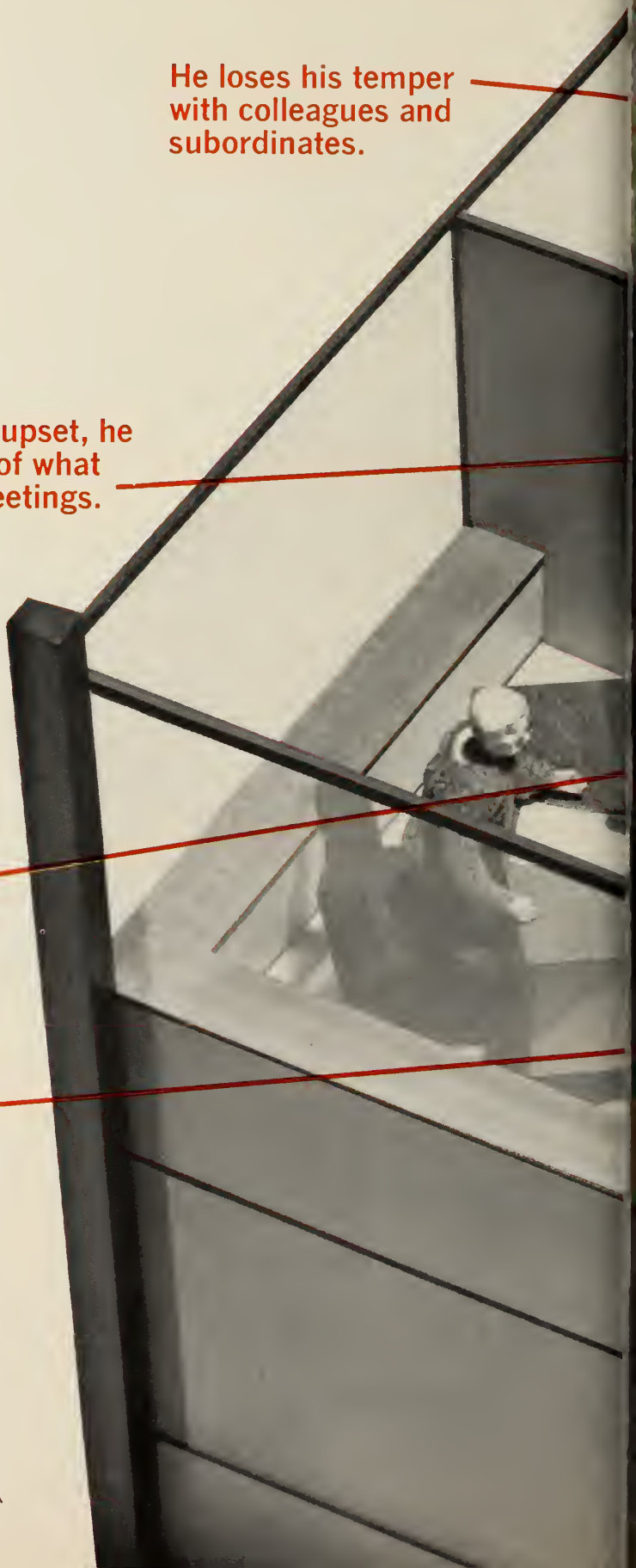
He goes home at night and takes it out on his family.

He loses his temper with colleagues and subordinates.

Emotionally upset, he misses half of what is said at meetings.

He is always fearful about his standing with the boss.

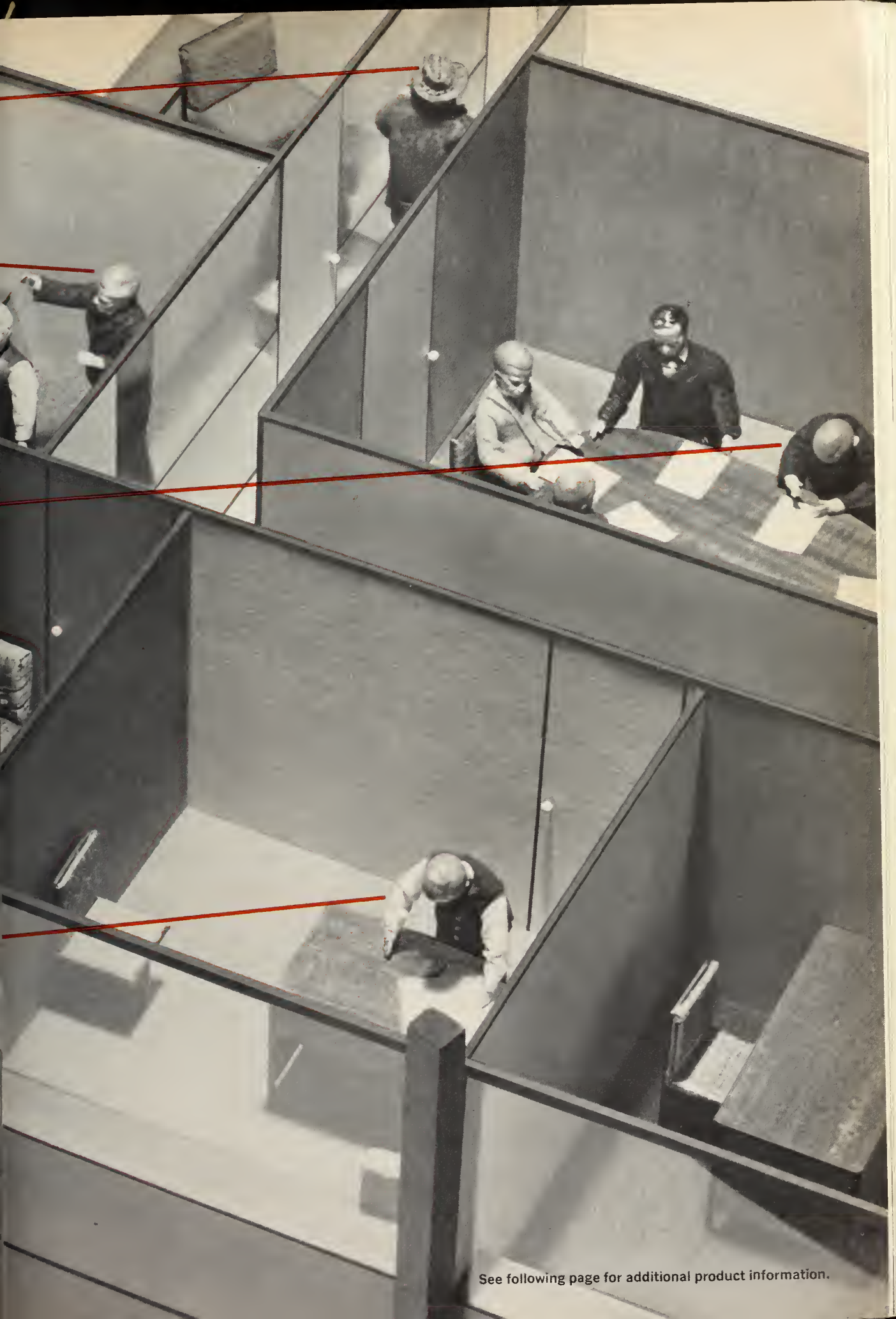
He just can't seem to settle down to his work.



for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ



See following page for additional product information.

When the agitated businessman goes to work...

Anxiety that seriously interferes with the individual's performance at work, at home, or in the community may be regarded as *moderate* to severe in degree.

Mellaril often recommends itself to the treatment of moderate to severe anxiety because it

- helps control the most frequent symptoms: marked tension, agitation, apprehension, restlessness, hypermotility
- often alleviates anxiety-induced somatic complaints
- frequently helps strengthen emotional resources
- helps the patient maintain realistic contact with environment, closer harmony with family

Thus, when you consider the anxiety moderate to severe... consider Mellaril.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

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for

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- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
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Ephedrine HCl	16 mg.

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Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

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Called Meeting—1968

Close on the heels of this issue of the Journal will come the third Called Meeting of the College of Counsellors and House of Delegates of the Medical Association of The State of Alabama to be held in as many years. This reflects the increasing volume of critical affairs which confront our membership.

In 1965, a meeting was called by then President E. B. Glenn to resolve the financial crisis confronting the State Department of Health. Counsellors and Delegates heard an alarming report from State Health Officer Dr. Ira L. Myers which said, in effect, that his department would be bankrupt and unable to continue many services unless additional funds were immediately forthcoming. Laboratories in Dothan, Selma and Decatur were either closed or being closed as economy measures. Restrictive salary limitations made it virtually impossible to employ physicians to replace those retiring or resigning for more lucrative positions. Thanks to the concerted efforts of the Counsellors and Delegates, this problem was solved.

In 1966, then President J. O. Finney again summoned Counsellors and Delegates to a meeting for a three-fold purpose: (1) to determine whether the membership preferred that Title XIX be administered by the Department of Pensions and Securities or the Health Department; (2) to ratify an agreement with Blue Cross-Blue Shield; and (3) to discuss the financial crisis which had descended upon the Association, itself. Again, the Counsellors and Delegates rose to the occasion and solved the problems.

Now on January 14, 1968, Counsellors and Delegates will assemble for the third time—not necessarily for the purpose of solving a problem, but to chart the course of organized medicine in Alabama through the shoals of the half dozen or so Federal-State health care programs which so vitally affect the future practice of medicine.

The Called Meeting of 1968 will be for the purpose of explaining the Governmental programs and relating one to the other and all to the physician. From these revelations, it may be hoped that the physician in his individual wisdom will be able to determine collectively the future direction in which these Federal-State programs shall be conducted without debilitating their benefits to the populace of infringing upon the physicians' prerogatives.

The record of past Called Meetings attests conclusively that the assembled body politic of this Association can solve its problems when properly informed. There is no reason to suppose that the 1968 Called Meeting will prove otherwise.

Never The Twain Shall Meet?

It would be safe to assume that the Alabama Legislature, as conservative a group as you would want to find, would never, ever endorse anything proposed by Sen. Jacob Javits of New York, as liberal a Republican as you would want to find.

Yet the official proceedings of the 1967 Alabama Legislature shows that the lawmakers are in wholehearted agreement with Sen. Javits in at least one area—the treatment of alcoholics.

Sen. Javits has introduced legislation seeking $100 million in federal funds to finance the construction of detoxification centers under medical supervision, treatment centers for patients under court orders, treatment programs for alcoholics serving jail sentences, and post-institutional programs.

The Alabama Legislature unanimously approved a joint resolution endorsing this legislation.

This action simply reflected in a graphic manner the abrupt change in society's feelings toward alcoholics in recent years. Not too many years ago society looked upon an

(Continued on Page 733)



Photo professionally posed.

No injection after all!

This penicillin produces high, fast levels—orally.

Pen•Vee® K is usually so rapidly and completely absorbed that therapeutic penicillin levels are attained within 15 to 30 minutes. Thus it can often obviate the need for penicillin injections. The higher serum levels produced generally last longer than with those of oral penicillin G.

Indications: Infections susceptible to oral penicillin G: prophylaxis and treatment of streptococcal infections; treatment of pneumococcal, gonococcal, and susceptible staphylococcal infections; prophylaxis of rheumatic fever in patients with a previous history of the disease.
Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.
Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.
Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
Adverse Reactions: (Penicillin has significant index of sensitization): Skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").
Composition: Tablets—125 mg. (200,000 units), 250 mg. (400,000 units), 500 mg. (800,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

ORAL **PEN•VEE® K**

(potassium phenoxymethyl penicillin) Wyeth®

NEVER THE TWAIN SHALL MEET?

(Continued from Page 731)

alcoholic as a drunk. Recommended therapy was to toss him into the tank to sober up.

Today the alcoholic is viewed as a sick person, a very sick person. What he needs is treatment, not confinement in a jail cell.

There is no longer much debate that alcoholism is a sickness, a health problem, and that it is one of the major problems in the nation. The U. S. Public Health Service recently ranked alcoholism fourth among the nation's "most serious health problems." Outranking alcoholism were heart disease, mental illness and cancer.

It is easy to grow weary of statistics, but in this instance they seem to serve a purpose, to wit—one out of every 33 Americans is an alcoholic; one out of every three arrests made in the U. S. is for public drunkenness; alcohol is involved in more than 50 per cent of all fatal traffic accidents in this nation. On and on we could go with the grim figures. Unfortunately, there are no statistics to measure heartbreak.

But the point to be made here is simply this—there is a growing awareness among all people that the town drunk is not a weak-willed bum worthy of no more than scorn and ridicule, but is in fact a sick man who needs what any person needs—treatment.

That the Alabama Legislature recognizes this fact is a good sign, because it will be the Legislature which eventually must provide the wherewithal to do what must be done.

Guest Editorial

Minority Report

At considerable risk, it can be said that the country is doing reasonably well. It could of course, do better, and it has at times done worse, but courage should not be in short supply despite the many headaches and heartaches about us. It is the fate of a great nation to struggle in the dust of the plains with the great social and economic issues of the day. This is not a country nestled in the Alps or hidden away in the fjords where life is on the pattern of a gingerbread town, but a great nation with hard problems of our own and often of others making. They must be solved by patience and resolution. They cannot be shouted down as volume has no premium over content.

There is at times a distressing inability for some citizens to count their assets. They disparage the very source of their freedom to disparage. There is much, however, to give us hope. Our courts have moved to further guarantee the rights of man and to see that justice is free from economic shackles. The great court of the land is anything but tranquil. "It sits," as Holmes has said, "in the eye of the storm, but it sits unfettered working for what is best for all men." If they do not please all men, it is because they were not meant to please but to lead.

No less contribution to the life in this country has been made in the practice of medicine. The quality of care, the excellence of research, the building and maintenance of physical plant and equipment are unmatched at least by countries of comparable size with this same complexity of population. This is not a country of state medicine and state religion and state education. It is a country where diversity is not only desired but cherished, and if de Tocqueville early in the century said, "that we are a country with thirty religions and only a one course meal," we are not embarrassed.

In industry our strength is inventive and resourceful. The products of a thousand fertile minds are present. Telestar, lasers, transistors, and polarized films are but the beginning of what we can do and industry is ready to accept the challenge of what we must do to clear the air, and the streams to free from pollution the environment in which we live.

Poverty and the struggle for human rights

must have our first concern. This solution must come by heart and hand or despair will find us all. Our critics are all about us, but it would be well for them to remember that we have not tried to solve our problems by a final solution for a people, or by the mass elimination of those who would not collectivize.

If this reads as a panegyric to this country, read it as such, for the freedom we have is not solely for dissent.

Reprinted from the Worchester (Mass.) Medical News.

Letter to the Editor

Dear Editor:

The action of The Medical Association of the State of Alabama (MASA) in transferring $2500.00 to ALAPAC has raised many questions. As you know, the money paid by doctors to MASA in the form of dues is considered a business expense for tax purposes. I am sure that all doctors deduct their dues to MASA from their income in good faith and based upon the belief that their dues are used as prescribed under law. I can find no evidence that MASA is an organization or corporation that pays federal income tax. In effect, MASA is a tax exempt organization as provided under federal law. What limitations the law imposes on organizations such as MASA in order for them to retain their tax exempt status is unknown to me.

The September 28, 1967 issue of The Alabama M. D. in reporting "Actions of September Meetings, Trustees and Censors" on Page 3, Paragraph 5 states as follows:

> "Upon the request of Dr. E. B. Glenn, Chairman of ALAPAC, the Board of Trustees recommended, and the Board of Censors concurred, that $2500 be transferred from the Dues and Contribution Fund to be used for ALAPAC's educational, operational and organizational activities."

The October, 1967 issue of "ALAPACTION '67" states on page 3 that every penny of money that ALAPAC received "goes into direct candidate support." Further reading confirms the above as there is the statement "In the beginning was the word, and the word was money." It can be easily seen that ALAPAC is a political fund raising organization.

With the foregoing in mind several questions have arisen, they are:

(1) Does the transfer of funds from MASA to ALAPAC jeopardize the tax exempt status of MASA.

(2) Does this contribution of money cause MASA to become a conduit by which members of MASA contribute to political organizations involuntarily.

(3) What will be the tax consequences to the individual physician who is deducting, as a business expense, his dues paid to MASA.

The members are well aware that there was an increase in dues with one of the stated purposes being to employ legal help for the Association. I am sure there are differences of opinion in regard to the above. May I request that this letter be published in the Journal and that you have your attorney reply below this letter.

Sincerely,

J. P. Mudd, Jr., M. D.

(Editors Note: Believing that the points raised in the above letter are valid and of interest to the entire membership, Mr. Robert B. Ingram, Executive Director of ALAPAC, has been requested to make a response, which follows. WLS)

In October, 1964, the question of the legality of Medical Association funds being used for so-called "housekeeping" expenses of

(Continued on Page 736)



treat one . . . six people benefit

The brunt of senility falls on the family as much as the patient. But usually within one or two days, 'Thorazine' can control senile anxiety and fear . . . dispel the confusion shown by nighttime wandering and chattering . . . restore appetite and interest in personal grooming. Treat the senile patient with 'Thorazine'—the whole family can benefit.

Before prescribing, see complete information, including adverse effects reported with phenothiazines and symptoms and treatment of overdosage, in SK&F literature or *PDR*. The following is a brief precautionary statement.

Contraindications: Comatose states or the presence of large amounts of C.N.S. depressants.

Precautions: Potentiation of C.N.S. depressants may occur (reduce dosage of such agents when used concomitantly). Use with caution in patients with chronic respiratory disorders. Antiemetic effect may mask overdosage of toxic drugs or obscure other conditions. Administer in pregnancy only when necessary. Because of possible drowsiness use cautiously and warn patients who operate vehicles or machinery.

Adverse Reactions: Drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; miosis; mild fever; weight gain; hypotensive effects, sometimes severe with I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosages (in rare instances, may persist); lactation and moderate breast engorgement (in females on high dosages); and less frequently, cholestatic jaundice (use cautiously in patients with liver disease). Adverse reactions occurring rarely, include: mydriasis; agranulocytosis; skin pigmentation; epithelial keratopathy; lenticular and corneal deposits (after prolonged substantial doses).

Available: Tablets, 10 mg., 25 mg., 50 mg., 100 mg. and 200 mg.; Spansule® capsules, 30 mg., 75 mg., 150 mg., 200 mg. and 300 mg.; Injection, 25 mg./cc.; Syrup, 10 mg./5 cc.; Suppositories, 25 mg. and 100 mg.

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in senile agitation . . . Thorazine® brand of chlorpromazine

LETTER TO THE EDITOR

(Continued from Page 734)

ALAPAC was raised. The Board of Censors of MASA had been asked for such a transfer of funds, and prior to acting on the request, a legal opinion was sought from the office of the Attorney General of Alabama and from the Law Department of the American Medical Association.

Rather detailed and lengthy responses came from both sources, and the conclusions were identical in both instances—that a state medical association could expend its funds for "housekeeping" expenses of a political action committee but that association funds could not be used for direct candidate support. It has been on these rulings that MASA, through the Board of Censors, has contributed funds to ALAPAC for non-partisan purposes such as office expenses, the preparation and dissemination of information and advice on how physicians can and should organize for effective political action, and similar educational purposes.

Meanwhile, all funds collected from ALAPAC membership contributions have been used exclusively for direct candidate support, and for that purpose alone. It may be of interest to further point out that every state medical association in the nation has a PAC organization, and all of them receive an appropriation from their association for "housekeeping" expenses. By the same token, AMPAC receives a substantial appropriation annually from the American Medical Association for the same purpose.

Turning briefly to the law in question, Title 18, U. S. Code, No. 610, is the heart of the matter. This section states that it is unlawful for any corporation to make a contribution or expenditure in connection with any election to federal office, or for any primary election, political convention or caucus held to select candidates for such office. The key phrase in this law is "in connection with." The legal determination, based on several court rulings (U. S. v. the CIO, 335 U. S. 106, (1948); U. S. v. The United Auto Workers, 352 U. S. 567 (1958) and others) is that "in connection with" mean expenditures and contributions that are directly connected with partisan participation in an election. This would indicate, in the eyes of legal counsel, that there is no statutory restriction on the use of association funds for educational political activities inasmuch as such contributions are not "in connection with" an election.

Two of the specific questions raised in Dr. Mudd's letter, (Nos. 1 and 3) have been previously posed and answered by legal counsel. Should any part of the MASA dues be used in direct candidate support then the tax-exempt status of MASA would indeed be jeopardized. Likewise, MASA dues paid by members—if used for direct candidate support—would not be legally deductible as a business expense for tax purposes. However, since no MASA funds are used for direct candidate support, then the tax-exempt status of MASA is not jeopardized, nor is there any effect on the legality of a physician claiming his MASA dues as a business expense.

As to question No. 2 in Dr. Mudd's letter, the following response is made: All funds of the Medical Association of the State of Alabama are spent either by direction of the College of Counsellors and House of Delegates when they approve the budget at each Annual Session, or upon direction of the constitutionally-elected governing authority in the interim between Annual Sessions. In other words, the membership through its elected representatives approves the rendering of financial assistance to ALAPAC for specific non-partisan political educational purposes.



around the state

1967 Officers of County Medical Societies

Talladega

President, E. H. Roberts, M. D., Talladega.

Vice-President, Charles Lee Camp, M. D., Sylacauga.

Secretary, John D. Rayfield, M. D., Talladega.

Treasurer, A. F. Toole, M. D., Talladega.

Board of Censors: Charles L. Camp, M. D., Chairman, Sylacauga; J. L. Thompson, Jr., M. D., Sylacauga; Harvey Campbell, M. D., Talladega; James D. Vaughn, M. D., Sylacauga; David Azar, M. D., Childersburg.

Delegates: J. G. Wright, M. D., Sylacauga and E. H. Roberts, M. D., Talladega.

Alternate Delegates: J. L. Thompson, Jr., M. D., Sylacauga and H. B. Campbell, M. D., Talladega.

Talladega County Society meets on the first Tuesday of each month at 8 P. M.

Coosa

President, H. L. Cockerham, Jr., M. D., Goodwater.

Delegate, H. L. Cockerham, Jr., M. D., Goodwater.

Escambia

President, Carroll S. Crawford, M. D., Atmore.

Vice-President, Benjamin C. Maxwell, M. D., Atmore.

Secretary-Treasurer, Edward F. Goldsmith, M. D., Atmore.

Board of Censors: Chester P. St. Amant, M. D., Chairman, Atmore; Percy J. Howard, M. D., Atmore; Robert R. Smith, M. D., Brewton; Everett L. Strandel, M. D., Brewton; Emil O. Scharnitzky, M. D., Brewton.

Delegates: Frank M. Phillippi, M. D., Brewton and Benjamin C. Maxwell, M. D., Atmore.

Alternate Delegates: Robert R. Smith, M. D., Brewton and Harold Q. Wilson, M. D., Atmore.

Escambia County Medical Society meets on the first Wednesday after the first Tuesday at 7 P. M.

Greene

President, Joe P. Smith, M. D., Eutaw.

Vice-President, J. J. Bethany, Jr., M. D., Eutaw.

Secretary, W. H. Frederick, M. D., Eutaw.

Treasurer, R. L. Staggers, M. D., Eutaw.

Board of Censors: W. H. Frederick, M. D., Chairman; J. P. Smith, M. D., J. J. Bethany, Jr., M. D., R. L. Staggers, M. D.

Delegates: Robert L. Staggers, M. D., and J. J. Bethany, Jr., M. D.

Alternate Delegates: W. H. Frederick, M. D., and Joe P. Smith, M. D.

Vital Statistics

DECEASED

Marion County

Couch, Edwin Wheeler, Winfield, Alabama 35594—Deceased.

CHANGES OF ADDRESS

Elmore County

Morgan, John D., present Tallassee, Alabama 36078, to 5918 Whitestone Road, Jackson, Mississippi 30296.

Etowah County

Denson, Joe W., present Gadsden, Alabama 35901, to 515 South 3rd Street, Gadsden, Alabama 35901.

Geneva County

Griffin, Stanley W., present Hartford, Alabama 36344, to 1007 Montezuma, Dothan, Alabama 36301.

Jefferson County

Compton, M. E., Jr., present Bessemer, Alabama 35020, to P. O. Box 173, Bessemer, Alabama 35020.

Cunningham, Wm. A., present Miami Beach, Florida 33139, to 2511 Park Lane Ct. South, Birmingham, Alabama 35223.

Del Vecchio, Pasquale A., present Bessemer, Alabama 35020, to Woodward Iron Company, Woodward, Alabama 35020.

Palmer, Fred L., present Birmingham, Alabama 35205, to 2216-21st Avenue South, Birmingham, Alabama 35223.

Smelo, Leon S., present Birmingham, Alabama 35205, to 1211-27th Place South, Birmingham, Alabama 35205

Madison County

Browning, Russell L., present Huntsville, Alabama 35802, to 93rd Evacuation Hospital, APO San Francisco, California 96491.

Moorman, Robert S., Jr., present Huntsville, Alabama 35801, to 409 St. Clair Avenue S. W., Suite C., Huntsville, Alabama 35801.

County Society Meetings

Dr. Neal S. Flowers, president, presided at the November meeting of the Mobile County Medical Society. Fifty-six members were present.

Principal speaker was Dr. J. Richard Moore, Chairman of the Committee on Socio-Economics. Topic of his address was "Health Planning."

New members elected were: Andrew Jackson, M. D., Leland C. Edmonds, M. D., Jerry Dugger Jordan, M. D., J. Coleman O'Gwynn, III, M. D., LeBaron Foster, M. D., and Philip D. Martin, M. D.

New officers will be elected at the next meeting.

(Continued on Page 741)

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and

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In addition Letter® is distinctively color coded with an identifying number stamped on each tablet to provide accurate dosage control.

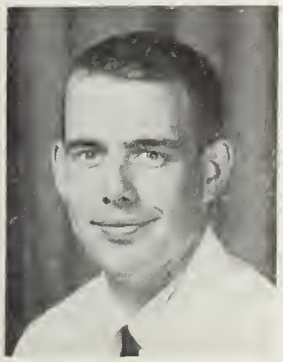
Indications: Hypothyroid conditions. **Contraindications:** Thyrotoxicosis, acute myocardial infarctions unless associated with hypothyroidism. In hypothyroidism with hypoadrenalism coadministration of corticoids with LETTER® is recommended. **Precautions and Side Effects:** Excessive dosage may result in diarrhea, cramps, palpitation, nervousness, rapid pulse, sweating. If symptoms appear, discontinue medication for several days, then reinstitute at a lower level. Since myxedema patients with heart disease may suffer seriously from abrupt increases in dosage, caution should be exercised in adjusting dosage. **Dosage:** Generally, the initial adult dosage is 0.1 mg. daily. This may be increased in small increments every one to three weeks until proper metabolic balance is achieved. **Available:** Bottles of 100 tablets, in six potencies: 0.025 mg. (violet), 0.05 mg. (peach), 0.1 mg. (pink), 0.2 mg. (green), 0.3 mg. (yellow), and 0.5 mg. (white).

ARMOUR PHARMACEUTICAL COMPANY • CHICAGO, ILLINOIS

New Physicians Licensed To Practice In Alabama



Walter Raleigh Whitehurst, Jr., M. D., University of Virginia School of Medicine, 1953, Reciprocity with Virginia—Located in Birmingham.



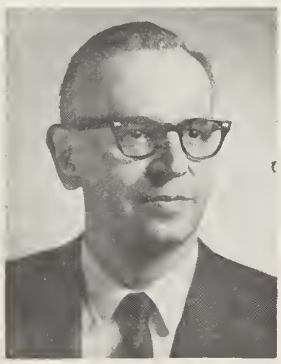
Ralph Raymond Braund, Jr., M. D., University of Tennessee, 1964, Reciprocity with Tennessee—Intends to locate in Huntsville.



William Franklin Jenkins, M. D., Jefferson Medical College, 1916, Reciprocity with Georgia—Intends to locate in Phenix City.



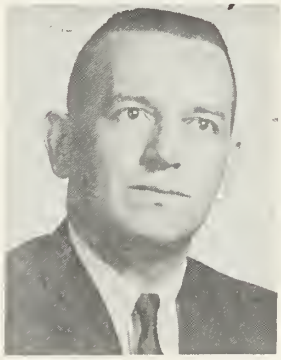
Theodore Dudley Lampton, M. D., University of Mississippi School of Medicine, 1962, Reciprocity with Mississippi—Intends to locate in Birmingham.



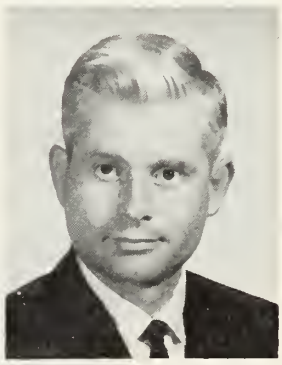
Milton Pack, M. D., New York Medical College, 1944, Reciprocity with National Board of Medical Examiners—Intends to locate in Decatur.



Robert Taylor Russell, M. D., Tulane University School of Medicine, 1960, Reciprocity with Louisiana—Located in Birmingham.



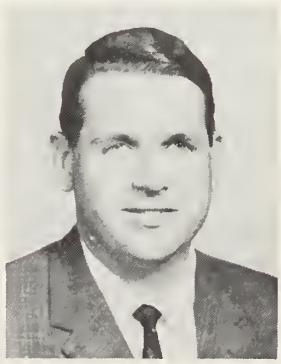
Jerry Gorton Spenney, M. D., University of Illinois College of Medicine, 1963, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Sidney Ray Berry, M. D., University of Tennessee College of Medicine, 1958, Reciprocity with Mississippi—Intends to locate in Mobile.



Theodore Albert Barker, M. D., Loma Linda University, 1963, Reciprocity with California—Intends to locate in Mobile.



John Coleman O'Gwynn, III, M. D., University of Tennessee College of Medicine, 1958, Reciprocity with Michigan—Intends to locate in Mobile.

David Beekley Lyon, M. D., Cornell University Medical College, 1956, Reciprocity with Mississippi—Located in Florence.



Bennie Matthew Grimes, M. D., Medical College of Alabama, 1963, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.





Robert Lange Elliott, Jr., M. D., University of Mississippi School of Medicine, 1961, Reciprocity with Mississippi—Intends to locate in Anniston.



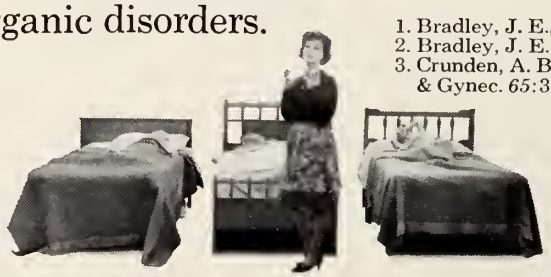
Frederick Samuel Wolfe, M. D., University of Maryland School of Medicine, 1928, Reciprocity with Maryland—Located in Montgomery.



Togetherness....

...can be rough when epidemics of nausea and vomiting strike a family. Emetrol offers prompt, safe relief. It is free from toxicity[1] or side effects[2,3] and will not mask symptoms of serious organic disorders.

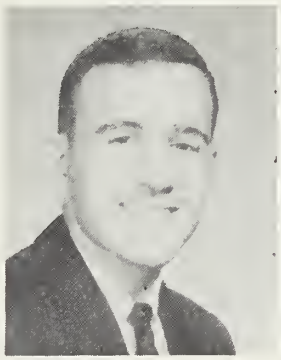
1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



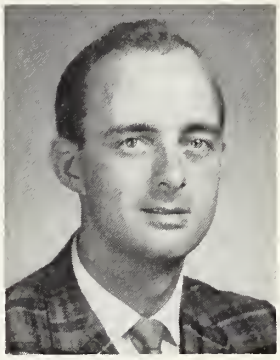
ROERER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

Emetrol®
phosphorated carbohydrate solution
emesis control



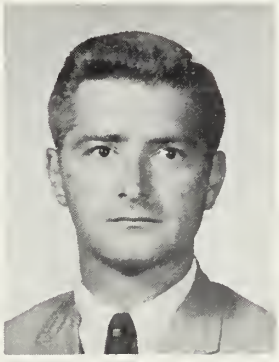
Frank Candler Randall, Jr., M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



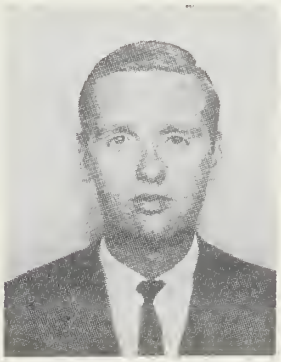
Maurice Hulbert Rowell, Jr., M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Mobile.



Norman Howard Parks, M. D., State University of New York Upstate Medical Center, 1963, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery (Maxwell AFB).



William Nathan Richardson, M. D., University of Tennessee College of Medicine, 1963, Reciprocity with Tennessee—Located at Tri-City Clinic in South Pittsburg, Tennessee which is three miles from the Alabama line and he has patients in Jackson County and North Alabama areas.



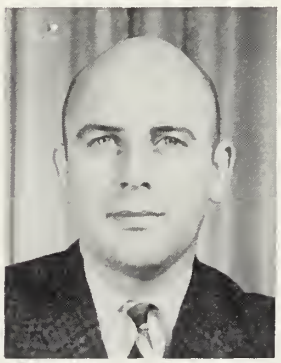
Charles Reynold Overstreet, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Hueytown.



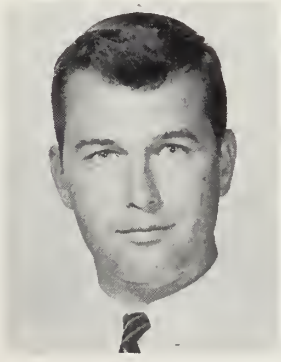
Lawrence Joel Malton, M. D., Yeshiva University Albert Einstein College of Medicine, 1963, Reciprocity with National Board of Medical Examiners—Intends to locate at Fort Rucker.



Joanne Smith T, M. D., Johns Hopkins Medical School, 1960, Reciprocity with Georgia—Intends to locate in Opelika.



Raymond Joseph Reid, Jr., M. D., Medical College of Georgia, 1966, Reciprocity with Georgia—Intends to locate in Heflin.



Thomas Hilliard Robinson, M. D., Medical College of Virginia, 1966, Reciprocity with Virginia—Located in Atmore.



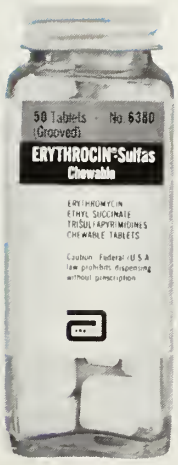
James Spullock Lambert, M. D., Medical College of Georgia, 1955, Reciprocity with Georgia—Intends to locate in Ardmore.

(Continued on Page 746)



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

ABBOTT

701358

NEW PHYSICIANS LICENSED

(Continued from Page 743)



Glen Dean Pittman, M. D., Washington University School of Medicine, 1963, Reciprocity with Missouri—Intends to locate in Montgomery.



John Richard Marchese, M. D., Georgetown University School of Medicine, 1961, Reciprocity with National Board of Medical Examiners—Intends to locate in Enterprise.



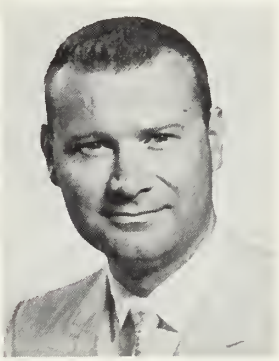
Leon Samuel Malmud, M. D., University of Pennsylvania School of Medicine, 1965, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery.



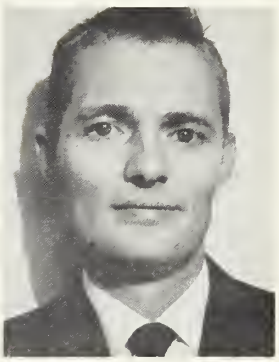
William Earl Korndorffer, Jr., M. D., Harvard Medical School, 1956, Reciprocity with Mississippi—Intends to locate in Montgomery.



John Orman House, M. D., University of Tennessee College of Medicine, 1950, Reciprocity with Tennessee—Intends to locate in Florence.



Richard Horton, M. D., University of Washington School of Medicine, 1958, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



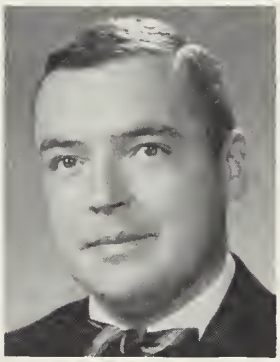
Bernie Gene Hewett, M. D., University of Texas Medical Branch, 1959, Reciprocity with Texas—Intends to locate in Huntsville.



Walter Frank Sidwell, M. D., University of Tennessee College of Medicine, 1955, Reciprocity with Florida—Intends to locate in Decatur.



William Rodgers Green, M. D., The Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Mobile.



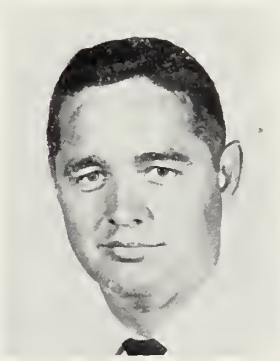
Edson James Andrews, Jr., M. D., University of Florida College of Medicine, 1966, Reciprocity with Georgia—Intends to locate in Gadsden.



Benjamin Baxter Wells, M. D., Baylor University College of Medicine, 1935, Reciprocity with Texas—Located in Birmingham.



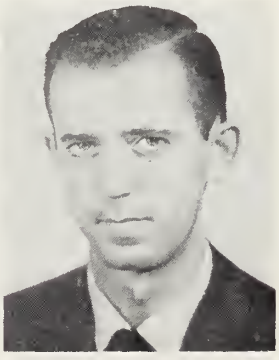
Joshua Harlan Carey, M. D., University of Chicago School of Medicine, 1944, Reciprocity with Illinois—Intends to locate in Birmingham.



Roy Rush Wright, M. D., Vanderbilt University School of Medicine, 1963, Reciprocity with Tennessee—Intends to locate in Birmingham.



Clyde Bolyn Cox, Jr., M. D., The Johns Hopkins University School of Medicine, 1959, Reciprocity with Maryland—Intends to locate in Selma.



William Earl Thomas, M. D., University of Mississippi School of Medicine, 1966, Reciprocity with Mississippi—Intends to locate in Prichard.



James Howard Spraul, M. D., University of Cincinnati College of Medicine, 1957, Reciprocity with Ohio—Intends to locate in Huntsville.



Bobby Wayne Smith, M. D., University of Arkansas School of Medicine, 1966, Reciprocity with Arkansas—Intends to locate in Montgomery.



Frank Joseph Spada, M. D., Georgetown University School of Medicine, 1950, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery.



Reuben Mallory Lattimore, M. D., Howard University College of Medicine, 1962, Reciprocity with Virginia—Intends to locate in Tuskegee.



Thomas William Sheehy, M. D., State University of New York, Upstate Medical Center, 1951, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Michael Harvey Princer, M. D., New York Medical College, 1961, Reciprocity with National Board of Medical Examiners—Intends to locate in Anniston.



Walter Hendrick Shehee, M. D., Emory University School of Medicine, 1952, Reciprocity with Georgia—Intends to practice twelve miles from Alabama line—is considering move to small Alabama town where physician is needed.



Gilbert Lee McDonough, M. D., Jefferson Medical College, 1960, Reciprocity with Georgia—Intends to locate in Montgomery.



Monroe Irwin Scheiner, M. D., The George Washington University School of Medicine, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Flomaton.



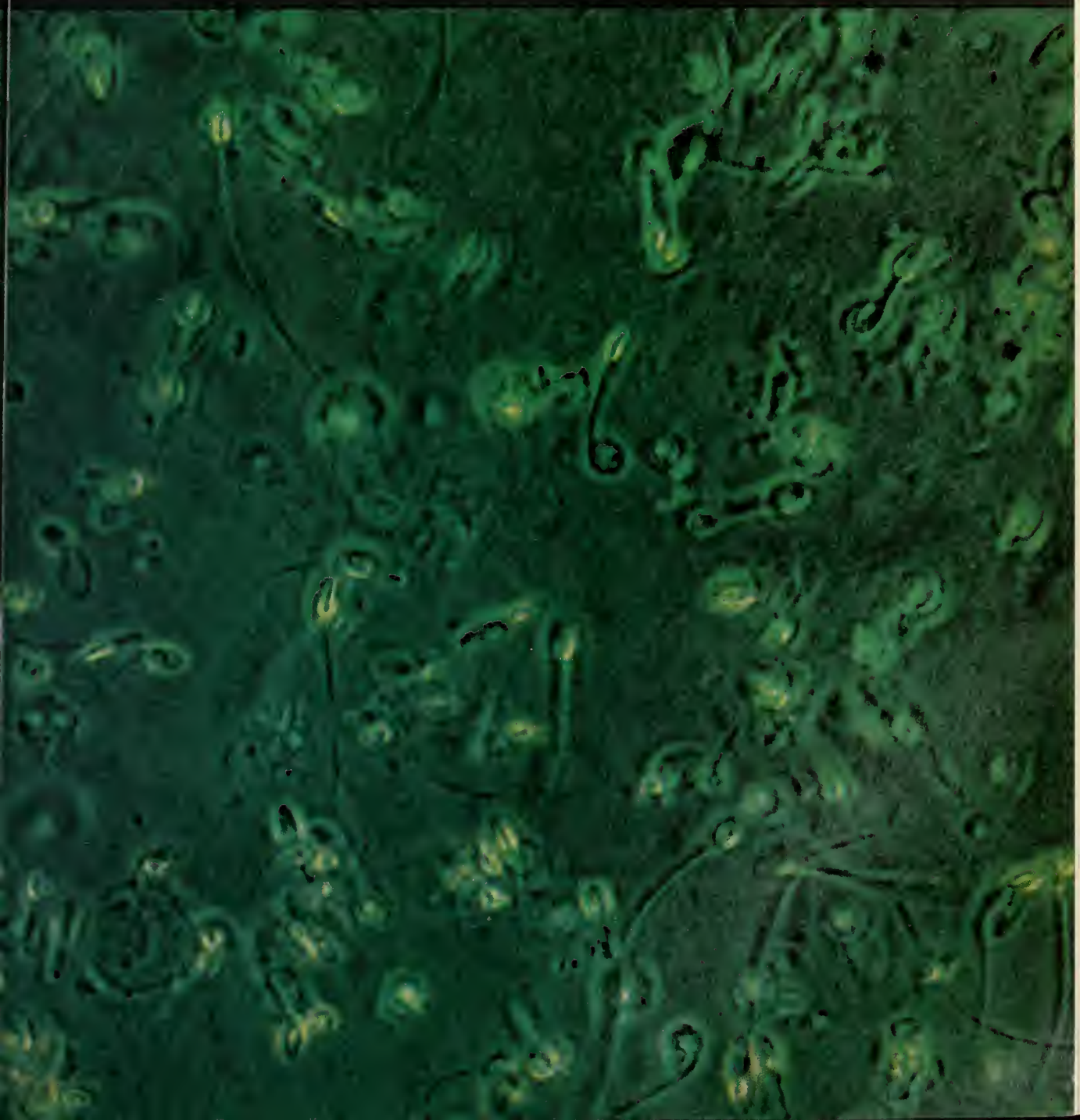
Nicholas Pridmore Redfield, M. D., Wayne State University School of Medicine, 1962, Reciprocity with Michigan—Intends to locate in Enterprise (Fort Rucker).

(Continued on Page 755)

When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg. & mestranol 0.05mg)

Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Prescribing Information

Contraindications: Patients with any symptoms or history of thrombophlebitis, pulmonary embolism, liver dysfunction or disease, carcinoma of breast or genital organs, or undiagnosed vaginal bleeding.

Warnings: Discontinue medication pending examination if there is sudden partial or complete loss of vision, proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. The safety of Norinyl-1 in pregnancy has not been demonstrated. If a patient misses two consecutive periods, pregnancy should be ruled out before continuing the medication. If she has not adhered to the prescribed schedule, pregnancy should be considered at the first missed period. Active ingredients of oral contraceptives have been detected in the milk of mothers who received these drugs; the significance to infants has not been determined.

Precautions: Pretreatment physical should include examination of the breasts and pelvic organs, as well as a Papanicolaou smear. If endocrine or liver function tests are abnormal during therapy, repeat tests are recommended after the drug has been withdrawn for two months. Following administration of drug, preexisting uterine fibromyomata may increase in size. Careful observation and caution are required for patients with symptoms or history of epilepsy, migraine, asthma, cardiac or renal dysfunction, cerebrovascular accident, psychic depression, and diabetes. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. Possible long-term effects of the drug on pituitary, ovarian, adrenal, hepatic or uterine function must await further studies. The physician should be alert to the earliest manifestations of thrombophlebitis and pulmonary embolism. The drug should be used judiciously in those young patients in whom bone growth is not complete. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask symptoms of the climacteric. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression. Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation posttreatment, premenstruallike syndrome, changes in libido, changes in appetite, cystitislike syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, and itching. The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has neither been established nor disproved): thrombophlebitis, pulmonary embolism, neuroocular lesions.

The following laboratory tests may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

norethindrone — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

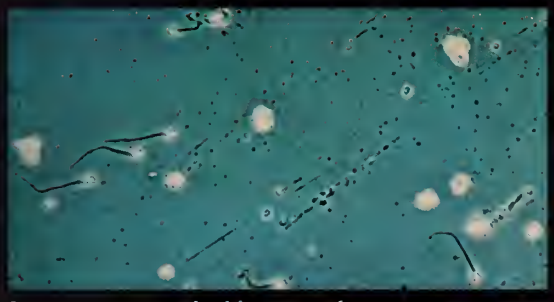
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

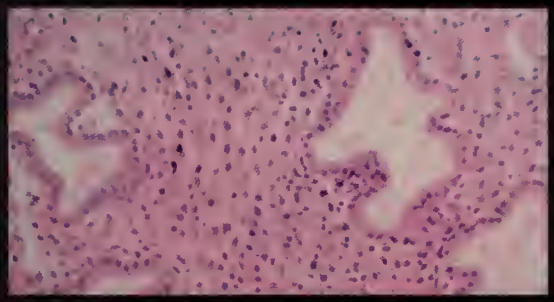
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.



Spermatozoa appear healthy, active, freemoving.

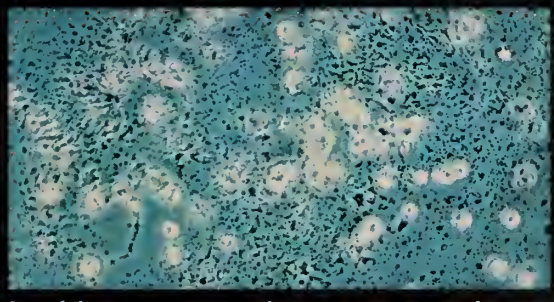


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

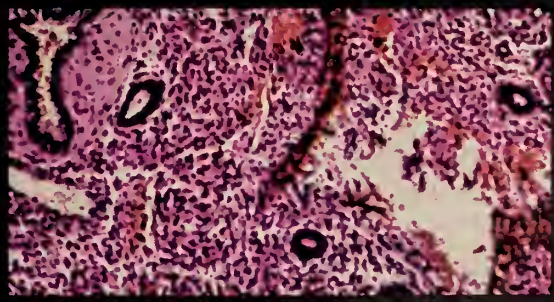
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

Norinyl®-1 tablets
(norethindrone 1mg. c mestranol 0.05mg.)

- new low dose of time-proved ingredients
- established norethindrone/mestranol ratio
- lower patient cost

An uncommon steroid for common inflammatory dermatoses

In everyday topical steroid therapy, Synalar produces rapid resolution of inflammation and itching in steroid-responsive dermatoses—and at relatively low cost to the patient.

Advanced molecular design enhances potency

Synalar combines the advantage of earlier corticosteroid compounds with unique structural innovations. As a result, preparations of Synalar 0.01% and Synalar 0.025% have been reported to be more potent topically and significantly more effective than hydrocortisone 1.0%. The unique fluocinolone acetonide molecule provides one of the most useful topical corticosteroids for everyday practice.

Impressive clinical results in a wide range of dermatologic problems

The clinical efficacy of Synalar has been extensively documented in the world literature. Commonly encountered diseases such as allergic and contact dermatitis, eczematous and seborrheic dermatitis, and neurodermatitis respond rapidly to Synalar, often where previous therapy with other topical corticosteroids has failed.

Low patient cost for wider usefulness

With Synalar, a high degree of efficacy does not mean high price. And—a small quantity goes a long way. Thus, your patients can often obtain the "economy" of a hydrocortisone preparation with the proved efficacy of a potent, truly advanced steroid.

Synalar®
fluocinolone acetonide





Turn page for contraindications, precautions and side effects

For everyday topical steroid therapy

Synalar® 0.01%

fluocinolone acetonide provides economy in two practical dosage forms

For general use, the most economical and widely applicable concentration of Synalar is 0.01% Cream in a water-washable, vanishing cream base. Synalar Solution 0.01% is especially valuable in dermatoses involving moist, intertriginous areas or hairy sites where creams and ointments do not spread or penetrate readily. Synalar Solution is a unique dosage form—clear, nongreasy, cosmetically elegant.

Product Information

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. *Precautions:* Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. *Side Effects:* Side effects are uncommon with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. In such cases the agent should be discontinued and appropriate measures taken. *Availability:* Synalar (fluocinolone acetonide) Cream 0.025%—5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01%—15, 45 and 60 Gm. tubes and 120 Gm. jars. Solution 0.01%—20 and 60 cc. plastic squeeze bottles. Ointment 0.025%—15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream—5, 15 and 60 Gm. tubes.

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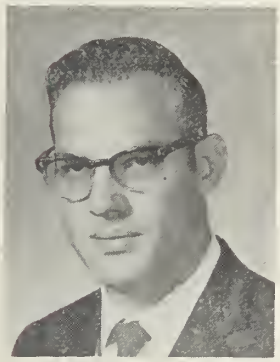
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Thomas Griffin Lamkin, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Deirdre Sherwood Collins, M. D., University of Chicago School of Medicine, 1965, Reciprocity with Wisconsin—Intends to locate in Montgomery.



Billy Ralph Nordyke, M. D., Seton Hall College of Medicine (Now New Jersey), 1962, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery.



Raphael Knight Graves, M. D., Emory University School of Medicine, 1958, Reciprocity with Georgia—Intends to locate in Montgomery.



Charles Patrick Nichols, M. D., Marquette University School of Medicine, 1965, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery (Maxwell AFB).



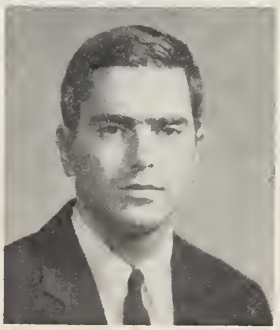
Jimmy Robert Johnson, M. D., University of Tennessee College of Medicine, 1966, Reciprocity with Tennessee—Intends to locate in Decatur.



Melvin Douglas Russell, M. D., University of Louisville School of Medicine, 1966, Reciprocity with Kentucky—Intends to locate in Montgomery.



Horace Emerson Buzhardt, M. D., University of Mississippi School of Medicine, 1964, Reciprocity with Mississippi—Intends to locate in York.

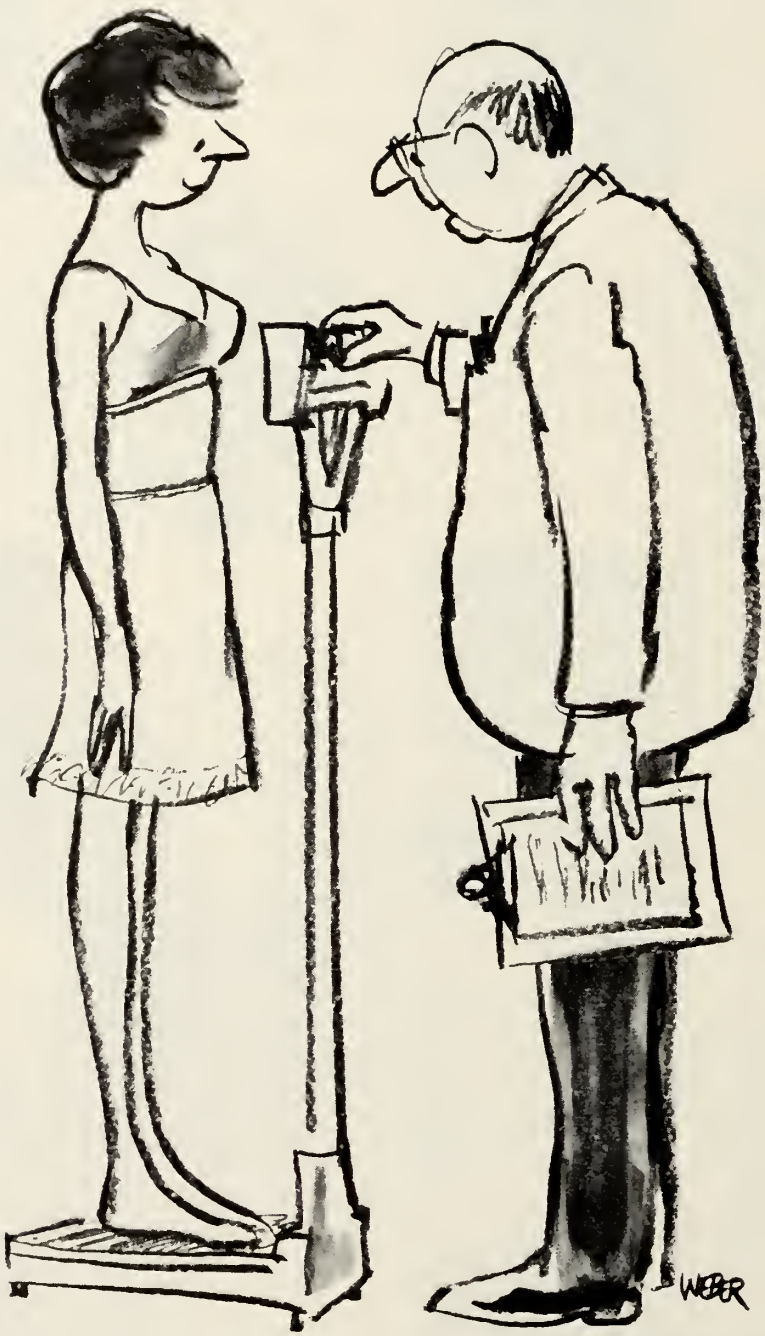


David Marion Gottesman, M. D., Albany Medical College of Union University, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Mobile.



Milton Frank, III, M. D., Vanderbilt University School of Medicine, 1964, Reciprocity with Tennessee—Intends to locate in Huntsville.

(Continued on Page 758)



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Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness. Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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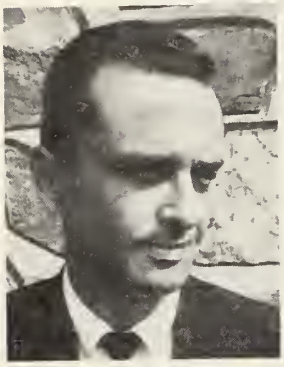
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Charles Samuel Capra, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



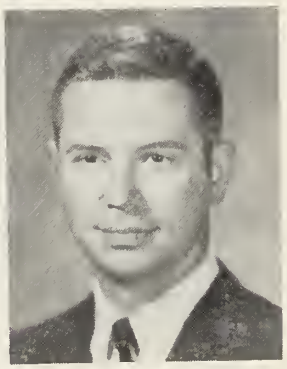
Leland Creason Edmonds, M. D., Tulane University School of Medicine, 1956, Reciprocity with Louisiana—Intends to locate in Mobile.



George Lloyd Hollister, Jr., M. D., University of Arkansas School of Medicine, 1958, Reciprocity with Arkansas—Intends to locate in Huntsville.



Terrell Bedford Bird, M. D., University of Tennessee College of Medicine, 1964, Reciprocity with Tennessee—Intends to locate in Jasper.



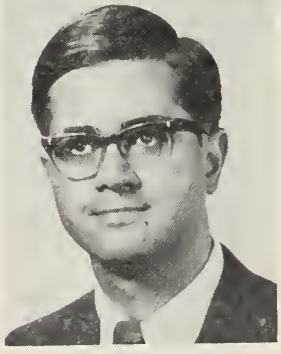
John Hamner Payne, III, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery.



Eugene Aloysius Bownes, M. D., St. Louis University School of Medicine, 1954, Reciprocity with Missouri—Intends to locate in Cullman.



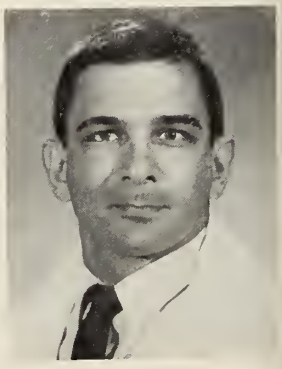
Nicholas Thomas Kouchoukos, M. D., Washington University School of Medicine, 1961, Reciprocity with Missouri—Intends to locate in Birmingham.



Allie Cosper Boyd, III, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Jerry Dugger Jordan, M. D., Louisiana State University School of Medicine, 1955, Reciprocity with Louisiana—Intends to locate in Mobile.



Richard Arkless, M. D., University of Pennsylvania School of Medicine, 1962, Reciprocity with Louisiana—Intends to locate in Andalusia area.

(Continued on Page 762)

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This gives a graphic representation of changes which the body may undergo in reacting to stress. The application of modern statistical analysis to these graphs provides a yardstick by which the calming effect of Valium (diazepam) can be measured quantitatively.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Infants, patients with a history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage—*Adults:* Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. *Geriatric patients:* 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See *Precautions.*)

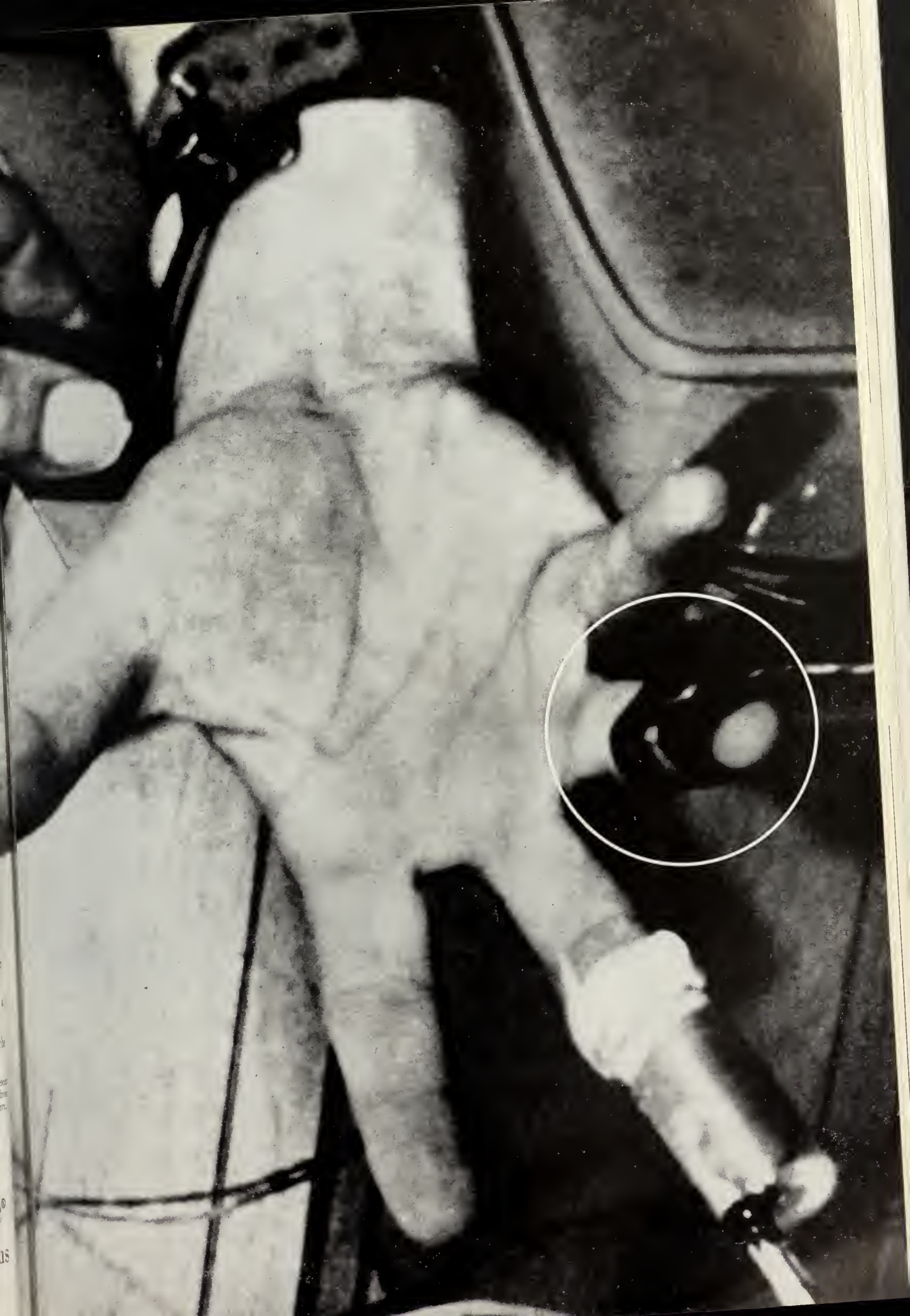
Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 and 500.

Roche Laboratories, Division of Hoffmann-La Roche Inc. Nutley, N.J. 07110

References: 1. Selesnick, S. T., and Clemens, T. L.: From research film "Motion Picture Films in Psychosomatic Research," available from Roche Laboratories. 2. Clemens, T. L., and Selesnick, S. T.: *Dis. Nerv. System*, *28*:98, 1967.

VALIUM® (diazepam) Roche®

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The Committee on Socio-Economics of the Medical Association of the State of Alabama met recently at the central office. Members are (clockwise, from top left), Drs. R. E. Murphree, A. E. Terry, Robert L. Griffin, Chairman John Slaughter, J. R. Moore, Jr., S. J. Campbell (ex-officio), and E. R. Johnston. At extreme left is Bob Ingram of the MASA staff.



The Committee on Public Relations met December 10 at the central office to discuss subcommittee reports on awards and Interprofessional relations. Members are, left to right, Dr. Jack Brock, Dadeville; (Inset—staff member John A. Arnold, Dr. Carl A. Grote, Jr., Huntsville, Chairman of the committee); Dr. T. Riley Lumpkin, Enterprise; Dr. Ira B. Patton, Oneonta and Dr. S. B. Word, Birmingham.





(Picture 1) Chairman William J. Atkinson, Jr., M. D. listens as members of Committee on Allied Medical Services review Subcommittee reports on Tuberculosis, Cancer, and Heart at a meeting in MASA headquarters, December 10. Left to right, Doctors C. E. Porter, Fairfield; W. A. Maddox, Birmingham; H. H. Hutchinson, Montgomery, representing Alabama Heart Association; S. S. Romendick, Mobile; and R. K. Oliver, Decatur. (Picture 2) Dr. R. K. Oliver presenting report for Subcommittee on Tuberculosis (Dr. Romendick and Dr. Porter).



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Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
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Precautions: Antihypertensive therapy with Hygroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents or other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Barbiturates, narcotics or alcohol may potentiate hypotension. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rise or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and or potassium depletion may occur. If potassium depletion should occur during therapy, Hygroton should be discontinued and potassium supplements given, provided the



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a.
special care in cirrhosis or
re ischemic heart disease and
atients receiving corticoste-
s, ACTH, or digitalis. Salt re-
tion is not recommended.
erse Reactions: Nausea, gastric
ation, vomiting, anorexia, con-
ation and cramping, dizziness,
kness, restlessness, hyperglyc-
ia, hyperuricemia, headache,
cle cramps, orthostatic hypo-
tension, aplastic anemia, leuko-
penia, thrombocytopenia, agranu-
locytosis, impotence, dysuria,
transient myopia, skin rashes, urti-
caria, purpura, necrotizing angiitis,
acute gout, and pancreatitis when
epigastric pain or unexplained G.I.
symptoms develop after prolonged
administration. Other reactions re-
ported with this class of compounds
include: jaundice, xanthopsia,
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other day.
Availability: White, single-scored
tablets of 100 mg. and aqua tablets
of 50 mg., in bottles of 100 and 1000.
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**For full details, please see the com-
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Published Under the Auspices of the Board of Censors

Volume 37 January, 1968 No. 7

The Physician and the Sexual Revolution

Max Levin, M. D.

The sexual revolution has affected the practice of the physician. It has brought a feeling of freedom to our people, especially our younger generation, but at the same time it has led to emotional conflicts and confusion. It has created problems which drive people to seek clarification and help, and often it is the physician to whom they go for guidance.

I propose to give reasons why we should regard premarital chastity as the ideal course for the young unmarried woman in our society. From this it may seem that I am defending the double standard, but this is not the case at all. I hold no brief for the double standard. But it *does* exist in our society and whether we like it or not, it is a significant factor in our determination of human values. Let us put it this way: *the girl has more to lose.* I am not thinking of the risk of pregnancy but of the girl's emotional investment in love and marriage. *Her* investment is greater than the boy's. A boy may take a casual view of a love affair but the girl is apt to take it more seriously. When a love affair breaks up and the two parties suffer a broken heart, the fracture is likely to be more severe for the girl. The boy may have only a simple fracture while the girl has a compound comminuted fracture. In her case there is more callus formation and the residual deformity is more crippling.

The young unmarried woman in our society today is the victim of a swindle. She is being sold a false bill of goods. She is beguiled by the rosy promises of the "new era" in sex. She is told that moral standards are a relic of the dead past and that the watchword today is freedom. The girl goes off to college today with a new sense of excitement. She will now live it up. There will be gay football weekends, with wild parties at the fraternity house followed by parties just for two at the motel. But she is not shown the small print in the contract. She is told nothing of the cost of sexual freedom, of its threat to her emotional health and well-being.

Freedom is a good thing, but we must have

Dr. Levin is Clinical Professor of Neurology, The New York Medical College, Flower and Fifth Avenue Hospitals, New York, New York 10029.

Address delivered at the Second Conference on "Sex Education and Marital Counseling for the Practicing Physician," sponsored by the Alabama Chapter, American Academy of General Practice, and the Alabama Association of Obstetricians and Gynecologists, Birmingham, Alabama, April 30, 1967.

a mature understanding of what it means. The child has an immature understanding: to him it means simply that you can do as you please. But to the mature mind freedom has a higher meaning: it means the capacity to develop and to realize your creative potentialities and to live up to your responsibilities without hindrance from within.

The confusion that prevails today is due in part to a misunderstanding of Freud. When Freud came upon the scene at the turn of the century, he became a hero to the Greenwich Village bohemians. He spoke of the evils of "repression" and they thought he had provided a scientific basis for their philosophy of free love. By the same token, he was denounced by religious groups as an exponent of immorality. Both groups did him an injustice. Freud was not referring to *overt* behavior. He did *not* mean that we must gratify every sex desire and act out every impulse. He was referring to *internal* behavior, the behavior that takes place in our minds. People have all kinds of thoughts and fantasies, and when these are associated with shame and guilt people try to "repress" them. Freud said we must not be afraid of our fantasies. They have meaning, and we must face them and try to understand them. In this connection it is noteworthy that his own personal behavior was beyond reproach. Freud had many enemies, in the medical profession and the academic world, and they would have been glad to come forth with evidence that he was an immoral man, with mistresses all over Vienna. But never did they find any deviation from the highest standards in his personal life.

Freud helped to set us free from the superstitions of our grandfathers. In those early days sex was regarded as something dirty, useful only for the purpose of procreation. To the woman it was no more than a "wifely duty," designed to satisfy the animal passions of her husband. *She* was not supposed to enjoy it. The topic of sex was taboo. You could look through all the magazines of the day and you would not find a single article on the topic, "Sex and the College Girl." Today our eyes have been opened, and we know that a woman can and should enjoy sex as much as a man.

We will gain insight into human sexuality from the contrast between man and lower animals. In lower animals copulation is possible only when the female is in heat, whereas in man it can take place at any stage of the monthly cycle. In man sex serves a purpose beyond procreation. What is this additional purpose? Clearly it serves a psychological purpose: it enables a man and wife to grow emotionally and to reach emotional maturity. The hallmark of maturity is the capacity to give of oneself. The infant cannot give, he can only receive. Only as he matures does he acquire the capacity to give. Emotional maturity finds its great test in the sexual relationship of a man and wife. The mature husband and wife live by the precept, "It is more blessed to give than to receive." The act of love is the supreme example of an interpersonal relationship. The partners must be as eager to *give* sexual satisfaction as to receive it.

In the sex act the wife can easily be derailed in the build-up of erotic tension that leads up to the orgasm. Nothing disturbs a wife as much as the feeling that her husband is selfish, that he is concerned with his own satisfaction and not with hers. Every psychiatrist has heard complaints about the "inconsiderate" husband. But when the wife knows that her husband's dearest wish is to make sure that she too will be satisfied, she goes to bed with him eagerly, with a feeling of security and peace of mind, and this is the optimum condition for her success in reaching a climax.

A devoted husband and wife reach the summit of their potentiality as human beings in the sex act, when, in their quest of the orgasm, each one's uppermost thought is not the satisfaction he hopes to get for himself, but that which he hopes to be able to *give* to his partner.

The early years of a marriage are a time of learning, of emotional growth. The husband and wife get to "know" each other. They explore each other's sex needs and learn how to satisfy them, and in the process they learn, as never before, the deep satisfaction that comes from giving, from putting the partner's welfare above one's own. The sexual fulfillment they attain strengthens the bond that brought them to the altar, and thereby it fortifies the home they have established for their children.

And so we see that sex in man goes beyond the purpose of procreation. It is an instrument for the growth of character. It takes a boy and girl and helps them to grow up and become a mature husband and wife, a good father and mother. It enables them to realize their highest potentialities.

But the exponents of the new era see none of this. They are blind to the role of sex as an instrument in the growth of character. They degrade sex, for they reduce it to a mere self-indulgence. In promoting sexual freedom, they say nothing of the cost. The young unmarried woman sells herself short when she gives herself to a man who wants only to seduce her. She diminishes herself in her own eyes as well as in his.

One of the slogans of the day is "permissiveness with affection." The meaning is that a girl would be wise not to have relations promiscuously with every boy she knows, but it's different when she and her boy friend have genuine affection for each other. Well, here is how a high school teacher got the message. She had attended a lecture on permissiveness with affection, and she was grateful for the help it gave her. She expressed it in these words: "Now I have an answer: I just tell the boys and girls that they have to consider both sides of the question: Will sexual intercourse strengthen or weaken their relationship?" This was not a college teacher, it was a *high school* teacher. Imagine the turmoil in the mind of a high school girl: in the afternoon she heard from her teacher that the question has two sides, and now in the evening she is being propositioned by her boy friend who assures her that intercourse will strengthen rather than weaken their relationship.

The dangers of premarital intercourse go beyond venereal disease and pregnancy. Even if venereal disease were abolished and contraceptive methods were developed to the point of perfect reliability, premarital chastity would still be in the best interest of the young woman. It would be to her advantage from the standpoint of emotional health.

A young couple are engaged but marriage has to be delayed. The young man is burning with love and desire, and they wonder why they can't start now. Aren't we always being told that the smart course of action nowadays is to *buy now, pay later?* But this principle is risky. When a girl goes to bed with her fiancé, she might suffer from uncertainty and anxiety. She might wonder if he is on the level. Is he possibly playing a game? Is he thinking that maybe after he has enjoyed her favors for a few months, he might get tired of her and want to switch to another girl? And even if she has faith in his integrity, she might still be afraid. She might think, "I have faith in my sweetheart, but after all he's only human. Is there any chance that if I *do* go to bed with him, he will lose his respect for me?" Now if a man has any sense he will *know* that these anxieties might arise to disturb his girl. If he is deeply in love, he would give his right arm to save her from pain. Nothing in the world is as important to him as her welfare and peace of mind. And if, in that spirit, he restrains himself, *she* will understand why. She will be grateful for this demonstration of his concern for her welfare, and this will strengthen her love for him. To put the matter in terms of economics, what better investment can a man make than a policy of self-restraint that will strengthen his girl's love for him and make her a better wife in years to come? He will be paying a price, in terms of postponement of sexual gratification,

but the cost, the investment, will one day return him dividends beyond measure.

There is a legitimate question that will occur to an engaged couple: "How do we know we will be sexually compatible? Shouldn't we test the matter now, before it's too late?" Forty years ago Judge Lindsey had the same idea. He was appalled by the growing divorce rate, and he knew that many marriages fail because of sexual incompatibility. He proposed a plan, which he called companionate or trial marriage. The young couple would live together as man and wife for a few months, and only if they proved to be compatible would the marriage become legal. The plan seemed sensible, but it never got off the ground. Quite aside from legal and religious objections, the plan is psychologically unsound, for it would give rise to too many "false negatives." The proposal of a trial marriage might well fill a girl with dismay. A woman wants a man who is so sure of his love for her that he knows he can't live without her, and he will assume any risk if only she will give him her hand. If the girl accepted the proposal and they put themselves to the test, her doubts and anxieties might block her response in the sex act and she might fail to reach the orgasm. And so they might come to the sad conclusion that they are not compatible, where they *would* have been had they waited till their wedding night. The test would have produced a false negative. The test of sexual compatibility is too important to be undertaken except under the most favorable conditions. The optimum condition is marriage, a union of two people whose devotion to each other is so great that they are willing to pledge their future together, gamble though it be.

There is another psychological objection to trial marriage. Consider a woman shopping for a dress. She goes to two different shops. In one of them she has the privilege of taking the dress home on approval; she can return it if she decides she doesn't like it. In the other shop she doesn't have this privilege; all sales are final. Her behavior will be different in the two shops. In one shop she will buy impulsively. She figures she has nothing to lose: she can always take the dress back. In the other shop she will be more careful in her selection. The same is true of marriage. Impulsive judgment does not promote the chances of marital success.

A disturbing sign of the times is the Report on "Sex and the College Student" that was issued recently by the Group for the Advancement of Psychiatry. The Report was prepared by the Committee on the College Student, hereinafter referred to as the Committee. The Group is made up of important and influential psychiatrists whose opinions are treated with respect, as they deserve to be. According to the *New York Times* the Report was acclaimed by the president of a leading women's college who called it "a book by people with wisdom, wide professional knowledge of college students, understanding and compassion."

The Report is disturbing because it will encourage the college coed to reject the ideal of premarital chastity. The Committee quoted at length the case of a coed named Sally. Sally entered college with the thought that she would remain a virgin, but she changed her mind in her junior year, when she met a boy with whom she developed a close bond. Here is how she explained it:

"It got to the point where it really got frustrating not doing it. We had been going out together seven or eight months and it seemed—if you feel strongly about a person and if you really love him—I don't see anything really wrong about it, because it is a complete relationship, as complete as for some people who get married. This is one action where you give everything you have to the other person. . . . It would have been almost wrong to keep holding back something that I really wanted to give him."

The Committee chose the case of Sally to illustrate what they regard as a constructive attitude. They write:

"In her attempts to make decisions, she recognized clearly the special nature of her relationship with this particular boy and she made the judgment that it warranted intimacy. . . . Growth is shown by Sally's ability to develop flexible attitudes toward the possibility of intercourse. Her values appear to be consistent. She demonstrates a responsiveness to life experience and a capacity to learn from them and to make choices. Rigidity, the necessity to cling unyieldingly to a set of fixed attitudes without the exercise of judgment, is usually indicative of anxiety and a lack of freedom to learn."

The Committee wrote further: "Issues of sexual morality are complex. . . . The oversimplification of the moral position in which abstinence equals right and indulgence equals wrong is not at all consistent with conduct at most colleges or in society at large."

The Committee derides this "oversimplification" and they prefer the "flexibility" shown by Sally. They write: "Abstinence may simply reflect inability to embrace sexual pleasure during adolescence." They use the word "may" but some readers will overlook this word and will conclude that in the eyes of competent psychiatrists abstinence is a sign of neurotic inhibition.

The statement that abstinence may be due to neurotic inhibition is an example of the proposition that the truth can lead one astray. The statement is eminently correct, for there *are* cases of sexual disorder arising from neurotic mechanisms. But the statement, impeccable though it be, can have a mischievous effect on the reader. It can stir up in her the impulse to prove to herself that she is not one of those miserable neurotic creatures who cannot "embrace sexual pleasure." This reminds one of a popular pitch of the young man bent on seduction. The girl is hesitant, and he pressures her with the argument that her hesitation is a sign of "frigidity."

To be fair to the Committee, let me say that they do not openly advise the coed to reject the policy of self-restraint. But neither do they recommend it. In essence they go along with the high school teacher who told her students they must consider "both sides of the question." The Committee tells the coed she must make a choice and they praise Sally for the "flexibility" which in their opinion is revealed in the choice that *she* made.

Now when you tell people that they have a choice, you may be sure that some of them will make the wrong choice. The pressures that confront the adolescent girl are confusing to her, and she needs our help. "You have a choice" is not the message that will help her. Our message to her should be this: "The choice that some people say you have is a snare. Premarital chastity is in your own best interest. And anything that is in *your* interest is bound to be in the interest of your future husband and children. Really, therefore, *you have no choice.*"

Speaking as physicians and not as religious teachers, we must help her to see that premarital intercourse is risky, not merely on moral grounds, and not merely because of the danger of pregnancy, but because it can have an adverse effect on her emotional well-being.

There is a common misconception of the value of premarital experience. When you practice the piano you become a better pianist, and some people think the same is true of sex. They say that premarital experience makes one a better bed-partner. No doubt it sometimes works out that way, but the conclusion is wrong. Previous experience is *not* necessary for a happy marriage. Even if the bride—and the groom too—are virgins on their wedding night, this will be no bar to their future success, and, on the other hand, even if they have each had a dozen affairs, this will be no guarantee of their compatibility with each other. A man and wife, both virgins, can learn and teach each other everything they need to know to achieve marital fulfillment. The requirement is not previous experience. The requirement is intelligence and an unselfish love. If they talk freely of

their needs and of the physical details of the sex act, they will learn the necessary know-how—provided, of course, there are no psychological blocks standing in the way.

The exponents of the new era are teaching our youngsters a false sense of values. They capitalize on the impulse to chase after fun and pleasure. A symbol of this false sense of values is the magazine *Playboy*. The magazine has been criticized as pornographic, and the editor, in replying to the charge, refers with pride to a letter from a reader who hails the editor as "a champion of truth and beauty." Is he really a champion of truth and beauty? It would be more correct to say he is an *enemy* of truth and beauty. He perverts the truth, for he tells his readers nothing of the creative aspects of sexuality, of its role in the growth of character. And as to beauty, do the foldout pages of the magazine present the correct image of feminine beauty? Beauty is more than symmetry of face and figure. A woman may be a knockout, but if she does not make constructive use of her charms, if she dissipates them in a manner incompatible with the womanly ideal, she may win prizes in a beauty contest but in a higher sense of the term she falls short of the model of feminine beauty.

We must teach our youngsters the real meaning of freedom. The young unmarried woman is mistaken if she thinks that the ideal of chastity is a restriction on her freedom. When a girl behaves in a manner that violates her own best interest, she is not free. She is a *slave*. She is a slave to the compulsion to *appear* free and sophisticated. No one is free who hesitates to do what is right out of fear that he will be regarded as a square.

Gael Greene in her book on "Sex and the College Girl" tells us of a coed at Stanford. Her boy friend found out that she was spreading unkind rumors about him and he put a stop to it in a way that was most ingenious. His method was really diabolically clever. He threatened to reveal a deep secret to all their friends. He threatened to tell them that she was not the *femme fatale* that she pretended to be, but was in fact a virgin. Faced with this threat of scandalous exposure, the girl had no choice: she caved in. In the words of the author, "she shut up."

To the devout believer—and even to the atheist—sex, in the setting of a happy marriage, is nothing short of sacred. It is altogether fitting that the groom proclaims his intentions to his bride in the noble words, "With my body I thee worship."

In the Middle Ages there was a great rabbi, Maimonides. Incidentally, he was also a celebrated physician. Even the wisest of men can blunder. In one of his lesser moments Maimonides wrote: "We ought to limit sexual intercourse altogether, hold it in contempt, and desire it only rarely. The act is too base to be performed except when needed." But a later rabbi, Nachmanides, corrected this grievous error when he wrote: "It is not true, as our rabbi and teacher asserted in his *Guide for the Perplexed,* that the sex urge is a source of shame to us. The act of sexual union is holy and pure. The Lord created all things in accordance with His wisdom, and whatever He created cannot possibly be shameful or ugly. When a man is in union with his wife in a spirit of holiness and purity, the Divine Presence is with them."

These profoundly stirring words, you will not find them in *Playboy* magazine. (They were quoted by Rabbi Roland B. Gittelsohn in his book, *Consecrated Unto Me: A Jewish View of Love and Marriage.*)

In many circles today morality is a dirty word. I myself have received scornful letters telling me I speak like a rabbi. But we are physicians and we have the obligation to teach what makes for good health. We must not be afraid that some people will think we speak like priests and rabbis. Our youngsters are confused and in many cases their parents are too. We must teach them the real values of life. We must protect them from the degraded image of sex that is in the air all around us. Let us teach them the reality of sex, in all its beauty.

The Physician's Role In Sexual Education

By

Lowell F. Peterson, M. D.

I am indeed grateful to all of you for granting me the privilege and opportunity of joining the other guest speakers in addressing your chapter of The American Academy of General Practitioners here in Birmingham. I am certain we can push back our community horizons and find new views of the sexual behavior (or misbehavior) of our contemporary youth. I hope we will, the result of this exercise, gain a new perspective of the physician's responsibility for helping to develop and implement a community educational program, designed to alter the sexual behavior of our young people. In my opinion most medical practitioners have not become sufficiently involved in this area.

Much is being written about the behavioral patterns of our young adults now attending college. The sexual revolution of free love appears to be unacceptable to those of us in our generation. Psychiatric problems of our student population are definitely on the increase as evidenced by many recent studies. History has repeatedly recorded the destruction of strong nations the direct result of moral decay, and in my judgement, we in the United States, are presently on this road. I am certain this trend can be reversed by the utilization of bold and strong educational community projects. Parents and other responsible community leaders must in some way, help in the establishment of more adequate channels of communication between generations. We doctors should do our part by supporting these community programs designed to give elementary and high school students more accurate information concerning sexuality so as to better prepare these young people for their complex lives and the freedom that a college campus offers. We are presently planning a detailed program for Hinsdale, the high points of which Dr. Perrelli will shortly describe. Dr. Albert Perrelli is an extremely able educator for whom we all have manifest respect.

Our college students are described by every medium of communication. Reliable sources estimate that 50 to 70 per cent of our present college population are now, in one form or another, practicing free love. Upwards of one half of the schools provide contraceptive advice to their students. Although I feel reasonably certain that an occasional young person can indeed benefit from these sexual experiences, the vast majority will swell the ranks of exceedingly poor marriage risks.

Moral degeneration has historically been a prime cause in the decline and collapse of many previously strong and prosperous societies. We all recall the fate of the Roman empire. Sexual misbehavior is not peculiar unto this generation. Cleopatra paced her days of destruction and Cromwell nearly destroyed England. Queen Victoria successfully revived chastity and virginity to the salvation of England, and so the proverbial pendulum again swings.

I am extremely concerned about our immediate and future national health and in-

Dr. Peterson is assistant professor of Obstetrics and Gynecology, University of Illinois, and The Hinsdale Hospital, Hinsdale, Illinois.

deed, our very existence. Lenin, in the early 1900's predicted the fall of the United States because of two general attitudes: 1) The lack of understanding monetary problems, 2) Devastating moral decay. I recently noted that President Johnson has again requested that the ceiling on our national debt be further elevated. We owe several billions of dollars in gold which we do not own. This to me indicates fiscal irresponsibility. The moral decay is more than obvious in the blatant lack of respect and responsibility seen in our social unrest which now seems country wide. I can envision nothing more disgusting to me than to observe the hippies, the riots, and in general, disrespect for law and order.

Four years ago, I became involved in the improvement of a sexual educational program in my town. Some 200 of our high school students formed and developed a most unusual organization known as the Citizen's Youth Organization. This has been an exciting creation, born of fertile young minds. These young people, among other endeavors, developed a youth jury system which functions as a part of our town's court system. Six rotational jury members hear and pass judgment on their straying peers. Wall washers and alley cleaners are observed nearly every Saturday as the juvenile law breakers serve out their sentences! The C. Y. O. asked for a panel of four people for the purpose of adding to their general knowledge. A Catholic priest, a psychiatrist, a social worker, and a physician, made up this panel. We met with some 180 students in the village hall, because at this juncture, such meetings were not welcomed in our school. These meetings were always co-educational and no parents were welcome! We of the panel were astounded at the frankness and lack of any semblance of embarrassment of these curious kids. All questions were answered frankly and directly. It was clear to the panel that there were two general areas of general concern: 1) The quest for accurate information in regards sex, and 2) The development of a moral code which was acceptable, first to their society, and second to the senior society.

Let those of us here today think back to your early days of learning. Where did you learn of sex? It is quite likely that your areas of education regarding sex came as did mine . . . from your peers in the locker room, in your 'bull sessions,' and other nepharious routes. I recall a frightening formal class held for boys only, conducted by our coach, clouded by an atmosphere of secrecy. A poorly made film on the ravages of syphilis was shown and I suspect other boys feared for days that such a disease was commonly contracted from drinking cups and public toilets. This was the beginning and end of my formal education in matters of sex! In the ensuing 30 years, so far as I know, there has been precious little change made in this area of education.

Of recent, I have read more and more about the need for parental sex educational programs so that children can be more adequately guided in their sex education. I have very strong feelings and opinions in this regard. Simply, unless one deals with a most unusual circumstance, this just will not work! I am not able to teach my adolescent children at this level of their curiosity and you cannot teach yours! I however can teach and guide yours and you can teach mine! I cannot envision a 14 year old son asking his father if he could safely masturbate 12 times a week! Nor can I envision a sophomore girl asking her mother why nothing really happened when her breasts were fondled and suckled while petting in the back seat of a lovers car! These are typical questions of high school kids. It is indeed interesting to note a common question submitted by young ladies in regards masturbation. . . . Is it true that the boys with the most pimples masturbate the most! And again, I would point out that these questions are submitted in a mixed discussion group.

After this brief discussion I would again submit that the average home is wholly in-

adequate to handle this level of sexual education. To whom then will this kind of curiosity be directed? I suspect that an occasional Church group is available, but here the element of continuity is generally lacking. As in any educational exercise, the yearly additive is of paramount import. A one exposure type program would be of little value when considering mathematics or a foreign language, and so it is with sexual education.

In the projected school program for our district, we are using two sources of feedback type materials obtained from our recently planned sophomore biology classes and also from The Hinsdale Health Museum. The Museum has been exposing children and their teachers for nine years to the wonders of the human machine. Over 600,000 people have visited this unique gift of the Kettering Family Foundation. Some 200,000 of these visitors have been school children ranging from K thru the 12th grade. Here again, however, an average student may be exposed to this educational tool for one or at best two visits. Continuity is lacking. From these many students, our two biology instructors have collected a general level of curiosity from which teaching materials are being developed. Teachers in turn will be guided by these materials for the implementation of their school room techniques. We submit that herein lies the ideal mechanics from which a continuing graduated program in the schools can be developed.

In addition to this Museum program, our social service department has been used very effectively in the class room follow-up. In addition to this, a limited number of physicians visit the sophomore biology classes as resource consultants. These classes are again mixed classes and the doctor, in a dialogue type presentation answers freely and directly those questions which have been previously submitted, anonymously, by the students. The basic assumption that there are no wrong questions, rather wrong answers, has been sustained.

A recent law passed by our state legislature now allows the subject of sex and family living to be taught in the class rooms of our public schools. This has offered our professional educators the needed protection from the occasional fearful and angry parent who resents this sort of endeavor. In addition to this, we have established a medical advisory committee, which is an advisory group of our local physicians. The function of this committee is to survey and suggest the mechanics and subject material for the student consumption.

Two years of this type program in the school room has been surveyed by student feed-back. At the sophomore level, three areas of concern have been clearly identified:

1) Major concern for greater understanding in the emotional boy-girl relationship.

2) Masturbation, as concerns both sexes,

3) Contraception and abortion.

There have been no requests for boy-girl segregation in discussions herein presented. Many comments have indicated a desire that this educational program, in depth, should be presented in its present form as early as the 6th grade, and probably better in the 5th. Suffice it to report that the students are overwhelmingly in favor of this new experience, and furthermore have indicated an intense desire that this type program be expanded.

In summary, I am deeply concerned about the direction in which great numbers of our youth seem to be headed; however I concurrently have great faith in our youth who are positively motivated. If one poses the question, "Are we in our schools doing the best job possible for all of our kids in all areas of endeavor?" To this I would say resoundingly, NO!

Until we add to our present three R's of 'readin', ritin' and 'rithmatic,' two more big R's, RESPECT and RESPONSIBILITY, we are offering our next generation far less than the best.

A Community Program In Sex Education

By

A. J. Perrelli

Dr. Peterson has established the need for the kind of educational effort most people nowadays refer to as sex education. However, if you grasp the full implications of his comments, it should be evident that he is interested in a program which does much more than present information on sexual behavior.

Dr. Peterson is interested in an educational effort which is directed toward helping people know themselves. His interests, it appears to me, center around a program of total personality and character development directed toward helping people assume adult responsibilities.

If the required effort is something as broad as a program in character development, then it should also be evident that the school is not the only agency which must be involved. Whatever is attempted must include all groups and institutions that influence behavior. In addition, what little we do know about the way behavioral guidelines and standards are developed suggests that organized efforts to influence behavior must be spread over a long period of time and must be an integral part of the day-to-day experiences of those to be influenced.

Actually there is a great deal of confusion about the exact nature of the conditions Dr. Peterson described. Within recent months, newspapers and magazines have carried a host of articles written by "experts," each offering an analysis and explanation of young adult behavior. Many offer suggestions of what needs to be done. Few have turned to the young people themselves to determine what needs to be done. In those instances where young people have been contacted, the message comes through loud and clear. They want assistance in:

1. Understanding themselves so that they can become self-confident members of their own sex.
2. Obtaining factual information on all aspects of sex.
3. Understanding different patterns of sex behavior among peers, among the adult generation and among people of other cultures.
4. Communicating with adults.
5. Developing a personal standard of behavior which is based on an understanding and concern for others.

These generalized comments of young people have become the foundation for a comprehensive community program which is about to get underway. This program is centered in the west suburban area of Chicago and involves 15 local school districts, members of the medical profession and clergy, and the Hinsdale Health Museum—an educational agency serving the Greater Chicago

Dr. Perrelli is Director, Institute for Educational Research, Downers Grove, Illinois.

Area. The program is designed to provide the following kinds of assistance:

1. *Providing instructional materials* for students and teachers.

 These materials will be:

 a. Designed for special classes in sex education as well as such traditional offerings as English, Homemaking, Sociology and American Problems. The major emphasis will be placed on the development of material to be used in existing offerings.

 b. Based on questions and concerns of students and not on what adults think students should know.

 c. Designed to help secondary school youth make personal decisions. The material will assist in the exploration of the historical, ethical, psychological, social and religious considerations. Most material will be open-ended with the "right kind" of behavior open for discussion and study.

2. *Providing inservice training for teachers.* This training will—

 a. Be conducted by members of the Project staff assisted by *local* members of the medical profession and clergy.

 b. Be ten to 12 hours in length. Large groups of 75 to 100 teachers will be presented accurate information on human reproduction through lectures and small group discussions will center on psychological, ethical and social considerations.

 c. Provide practice teaching seminars. This will give teachers experience in working with students in other than the regular classroom setting.

 d. Include opportunity for Project staff members to travel to co-operating schools to guide and assist teachers.

3. *Providing adult education services.* These services will include—

 a. Six hours of training for local community leadership groups. Membership in these groups will consist of key community leaders who will help establish a dialogue between generations and also promote programs of training for parents.

 b. Continuing support from the Project staff as the local leadership group begins its program.

While this is a rather comprehensive program of considerable depth and intensity, there are a number of practical considerations which will tend to work against its success. The most important of these is the fact that much of the program centers around the schools. And, there are at least three reasons why the schools will find it difficult to assume a significant role in this project.

The first is that the teacher and school administrator must contend with their own conflicting values toward sex. Like the parent or anyone else who attempts to help young people, the educator must resolve his own conflicts about sex.

Another way the school administrator puts this problem is to state that many teachers are not comfortable in handling this topic in the classroom. They find it difficult to be frank and straightforward in dealing with questions about sex. The reasons for this may be quite varied. But no matter what may cause such a reaction, if teachers have deep-seated feelings of embarrassment, disgust or aversion toward sex, more harm than good may come of any attempt to center efforts around the school.

This, of course, is the major reason for including inservice training for teachers as a part of the project. An attempt will be made to help teachers face themselves. However, those who are responsible for the project are very much aware of the limitations of a 12

hour training program. Participants are not expected to gain profound insights into their personal behavior. However, the program should identify those teachers who are capable and interested in handling the more sensitive aspects of the school program. These people will be encouraged to continue their interest in sex education and will be given all of the assistance they need as they begin work in their own schools.

A second reason the schools will have difficulty with this program is found in the role schools have assumed in the long history of education. Traditionally, schools have been regarded—by both educators and the public—as the preservers of culture, the agency through which society transmits its values, traditions and beliefs. This of course includes its beliefs about sex and sexual behavior.

As one well-known educator put it, teachers and s c h o o l administrators have been more priests than prophets, more preservers than developers. They have been concerned primarily with transmitting information rather than with investigation, exploration, discovery and decision making. Because of this, schools have been characterized by some as training rather than educational institutions.

Many educators argue that schools have been forced to assume this kind of a limited role. They say the public would not have it any other way. Most communities are *really* not interested in supporting a program which *may* someday result in different ways of doing things. However, regardless of the reasons why schools have assumed such a limiting role, it is quite clear that they will not be able to realize the goals of a good sex education program if they continue to serve such narrow purposes.

For example, how can schools provide factual information for students on *all* aspects of sex and sexual behavior and still transmit a tradition which upholds a clandestine approach to sex information for young people? Are schools really in a position of helping each individual develop a personal standard of behavior and still preserve what appears to be an existing standard?

A third dilemma facing schools as they attempt to assume their responsibility in a community sex education program is a widely held assumption about the nature of the educational process. Many people believe that filling Johnny's brain with information will automatically make him a good boy. In brief, while there are people who believe the school should be concerned with the development of attitudes and values, some of them feel that this can best be done by simply providing information, with little concern with how that information will be used.

Not very long ago, the Chancellor of Texas Christian University had some very interesting comments on this assumption. He said, "there is no proven connection between informing the mind and moving the heart; information shows small correlation with conviction; and level of educational achievement bears little relation to level of moral aspiration."

Unfortunately, despite such statements, the assumption that schools need only exist to provide information has taken on added strength and significance in the post-sputnik period. This idea has become such an important element in the philosophy of many educational institutions that teachers and others in education have almost completely divorced themselves from students. They develop little if any sensitivity to students' feelings and beliefs. They tend to leave the matter of attitude and value development to specialists in counseling. The pressures for academic excellence are so great that such board and relatively intangible goals as the development of attitudes and values are lost. This, of course, makes it more difficult to initiate a school program primarily concerned with the way people behave. Teachers may not see the importance of such a program. People in the community may think

it has little value.

In spite of these handicaps, a number of communities have been successful in initiating programs. Most have followed the advice of Mrs. Mary Calderone, M. D., Director of the Sex Information and Education Council of the United States (SEICUS), who states: "Experience in several communities impels me to remind these eager ones that making haste slowly will pay off, for sex education has several characteristics that render haste undesirable. We don't know yet what it should be, or how to do it and lots of people are bound to be against it *unless* each community understands and accepts the aims and methods of a program, in the planning of which it has fully participated."

The following suggestions related to the initiation of a program have been developed from an analysis of successful programs as well as a review of current literature. Hopefully they may be of interest to some of you.

Getting Started

1. Establish a leadership group representative of the entire community. This group should include teachers and administrators, parents, members of the clergy and medical professions, people in the communications media and by all means, representatives of youth organizations.
2. Initiate a program of reading and general discussion in the leadership group. Provide group with study materials, study existing programs in schools and churches and try to ascertain what parents are doing. Interview child specialists, social workers, and others to determine the kinds of questions and concerns expressed by the youth of the community.
3. Identify willing and able medical people who can be resource people to existing church and school programs. This is important. Medical people can do a great deal to give the program needed status.
4. Develop an outline of a suggested school program which identifies content, time and required materials of instruction and the present offerings where sex education instruction can be introduced. This outline should eventually be approved by the School Board.
5. Initiate, through the leadership of the youth representatives, some kind of program which establishes a dialogue between the youth of the community and community leaders. (See Dr. Peterson's example of the Hinsdale, Illinois Citizen's Youth Association).
6. Provide inservice training for teachers.
7. Before the program is initiated in schools, take special care to be sure—
 a. All teachers and parents understand its purposes and aims.
 b. Parents are given specific information on what is to be covered in the program.
 c. Parents have an opportunity to see films and examine other instructional material which will be used.

Smoking Nation's Number One Health Problem

Catherine G. Lamar

One hundred and twenty-five participants attended the first statewide conference on smoking and health held October 9-10, at the University of Alabama in Tuscaloosa.

The purpose of the conference was to develop leadership among teachers, health educators, volunteer health agency employees, parents, and interested lay persons and to initiate planning for the five district conferences which will be held throughout Alabama during the year.

Dr. Willis J. Baughman, conference director and Alabama's project director, greeted the group with the challenge: "Smoking is the nation's number one health problem. No immunizations or medications are available at the present time to combat the problem. There is a great need for leadership in this area."

Conferees were welcomed by Dr. Robert E. Bills, dean, College of Education, and Dr. Wesley M. Staton, chairman, Department of Health, Physical Education and Recreation, University of Alabama.

Dr. Terry E. Lilly, Jr., a Kansas City, Mo. tumor and cancer surgeon, delivered the keynote address "Smoking and Health—Its Implications." He gave statistics on the increased number of smokers and the rise of certain related diseases. Dr. Lilly cited examples of measures taken by various industrial leaders, such as Henry Ford, to prohibit or reduce smoking of employees. He commended the medical profession for their active stand and participation in a movement to reduce smokers: "They, more than any other profession, have reduced the number of smokers within their organization." He continued that this anti-smoking movement needs to be felt everywhere and begun at the lowest level of education. He concluded his address: "God bless you all, and may you succeed in a hurry for the need is urgent."

The three-year Leadership Development Project On Smoking and Health being conducted throughout the U. S. by the American Association for Health, Physical Education and Recreation was explained to the group by Dr. Vincent Granell, project director, Washington, D. C. Dr. Granell stated that the project was being conducted under the premise that crash programs were largely unsuccessful; the need exists for communities to unite with schools and work to initiate new anti-smoking programs and strengthen existing ones.

Dr. Pearline Yeatts, professor of education, University of Georgia, Athens, addressed participants on "Behavioral Aspects of Learning—Its Implications for Smokers." She explained the various theories advanced as to causes of smoking and methods of approaching the problem by allowing people to meet their dependence or need through another method. Dr. Yeatts contended that all behavior is learned and for this reason parental influence upon children is very important. Statistics have shown that children of parents who smoke are more likely to smoke than those whose parents do not smoke. She stressed the influence that mass media has upon children, representing a force which makes it hard for parents to control behavior of children. Cigarette smokers depicted through national advertising as vibrant, successful, and happy individuals have a great influence upon a person's desire to smoke. The threat or fear tactics used to reduce the incidence of cigarette smoking have been largely unsuccessful due to the fact that this usually changes behavior only temporarily, not permanently.

Mrs. Lamar is an information specialist in the Bureau of Primary Prevention, Alabama Department of Public Health.



Let's be specific about Campbell's Soups... and *reducing diets*



There are more than 30 million people in America who are overweight. During the next year, you probably will see more than 1,000 of them in your own practice.

One good way to help these patients is to give them a reducing diet based on ordinary eating patterns.

Campbell has prepared a sensible plan for weight control based on ordinary eating patterns. The plan consists of a patient instruction booklet and a set of menus which provide approximately 1,200 calories daily. The menus are balanced to provide the minimum daily requirements of nutrients.



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TABLETS / LIQUID

Each tablet and each 5 cc. of liquid contains:
diphenoxylate hydrochloride 2.5 mg.
(Warning: may be habit forming)
atropine sulfate 0.025 mg.

Halts Diarrhea Promptly

in children with . . . Gastroenteritis ▪ Spastic bowel
Influenza-like infections ▪ Antibiotic-induced diarrhea

Lomotil helps get children with diarrhea off toast and tea and back to normal diets and normal activity with gratifying dispatch. ▪ Lomotil lowers intestinal motility and permits absorption of excess fluid. This usually controls diarrhea promptly. ▪ Moreover, lowered intestinal motility achieved with Lomotil often relieves the abdominal cramps and discomfort so distressing to children.

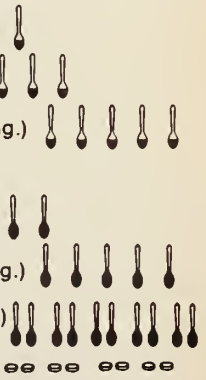
Precautions: Lomotil is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded, and medication should be kept out of reach of children. Should accidental overdosage occur signs may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia; continuous observation is recommended. Lomotil should be used with caution in patients with impaired liver function or those taking addicting drugs or barbiturates.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of the extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

Dosage: The recommended initial daily dosages, given in divided doses until diarrhea is controlled, are:

Children: Total Daily Dosage

3-6 mo. . .½ tsp.* t.i.d. (3 mg.)
6-12 mo. .½ tsp. q.i.d. (4 mg.)
1-2 yr. . . .½ tsp. 5 times daily (5 mg.)
2-5 yr. . . .1 tsp. t.i.d. (6 mg.)
5-8 yr. . . .1 tsp. q.i.d. (8 mg.)
8-12 yr. . .1 tsp. 5 times daily (10 mg.)
Adults: . .2 tsp. 5 times daily (20 mg.)
or 2 tablets q.i.d.



*Based on 4 cc. per teaspoonful.

Maintenance dosage may be as low as one-fourth the initial daily dosage.

SEARLE *Research in the Service of Medicine*


He's on the wagon...and

How well does Vistaril relieve the symptoms that plague an alcoholic during the recovery period? Doctors Knott and Beard of the Alcoholic Rehabilitation Unit, Tennessee Psychiatric Hospital and Institute, recently conducted a double-blind study comparing Vistaril and another well-established antianxiety agent with placebo in 60 chronic alcoholic patients.[1]

The investigators conclude: "It was the opinion of the staff that hydroxyzine was generally more effective than chlordiazepoxide, for the following reasons: hydroxyzine was equally if not more effective in reducing anxiety and tension and it produced less daytime sedation...."[1] (See results on succeeding pages.)

Here is new evidence that Vistaril can ease tension, allay anxiety in chronic, hospitalized alcoholic patients. *But you might also choose Vistaril for what it doesn't do.* Although not evaluated in this study, Vistaril is reported to be non-euphoriant, and its low toxicity makes it relatively safe. Best of all, Vistaril is non-habituating. To date, after more than ten years of clinical use, there have been no reports of dependency in patients receiving Vistaril.

With Vistaril, it is as easy to stop therapy as it is to start.

Vistaril® (HYDROXYZINE PAMOATE)

the study:[1] Sixty chronic alcoholic patients were hospitalized and randomly assigned to one of three oral double-blind treatment regimens for three weeks. Twenty patients received hydroxyzine (Vistaril®), 100 mg. q.i.d.; twenty others were given chlordiazepoxide, 25 mg. q.i.d.; and the remaining twenty received placebo capsules q.i.d. The capsule code was not made known until after completion of the study and analysis of the data. Response was measured with a modification of the Brief Psychiatric Rating Scale as originally outlined by Overall and Gorham.* Subjects were rated daily by trained staff members.

SYMPTOM RATING KEY

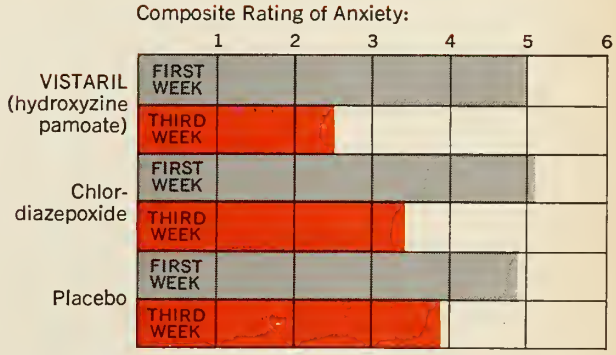
1=Not Present	4=Moderately Severe
2=Mild	5=Severe
3=Moderate	6=Extremely Severe

The figures which are given below represent the composite conclusions of the staff based on daily ratings during initial and final weeks of the study.

*Psychological Reports 10:799, 1962

the results' DURING FIRST WEEK DURING THIRD WEEK

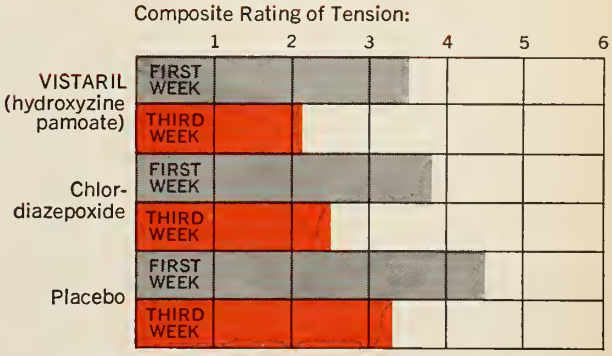
Anxiety reduced with Vistaril



OVERALL REDUCTION OF ANXIETY (%)

VISTARIL (hydroxyzine pamoate) 50% | Chlordiazepoxide 33% | Placebo 20%

Tension eased with Vistaril



OVERALL REDUCTION OF TENSION (%)

VISTARIL (hydroxyzine pamoate) 40% | Chlordiazepoxide 34% | Placebo 27%

PLEASE SEE LAST PAGE FOR PRESCRIBING INFORMATION

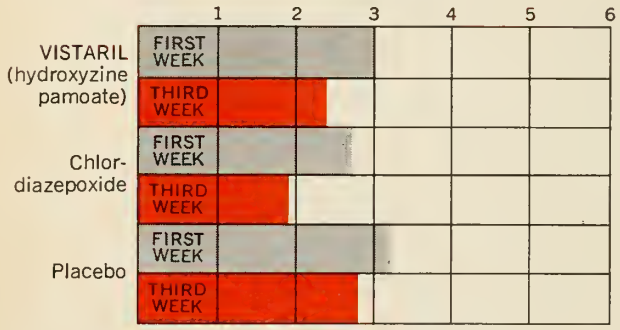
In Alcoholism...

"Both hydroxyzine and chlordiazepoxide were generally more effective than the placebo. In some aspects, hydroxyzine was superior to chlordiazepoxide, which is currently the most frequently used psychotropic drug in the management of alcoholism."[1]

DURING FIRST WEEK DURING THIRD WEEK

Depressive mood improved with chlordiazepoxide

Composite Rating of Depression:

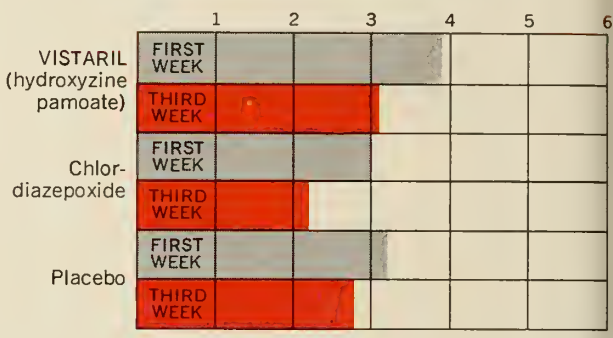


OVERALL IMPROVEMENT IN DEPRESSIVE MOOD (%)

VISTARIL (hydroxyzine pamoate) 20% | Chlordiazepoxide 30% | Placebo 13%

Emotional withdrawal counteracted with chlordiazepoxide

Composite Rating of Emotional Withdrawal:

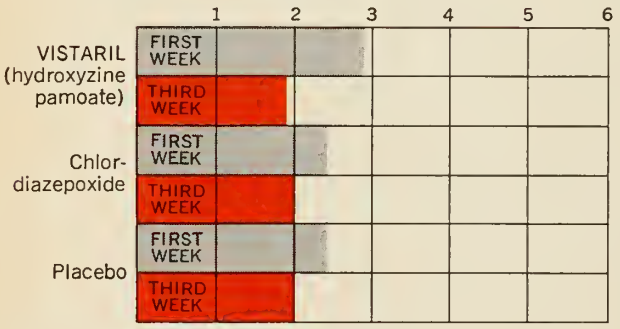


OVERALL IMPROVEMENT IN EMOTIONAL WITHDRAWAL (%)

VISTARIL (hydroxyzine pamoate) 21% | Chlordiazepoxide 27% | Placebo 13%

Guilt feelings allayed with Vistaril

Composite Rating of Guilt Feelings:

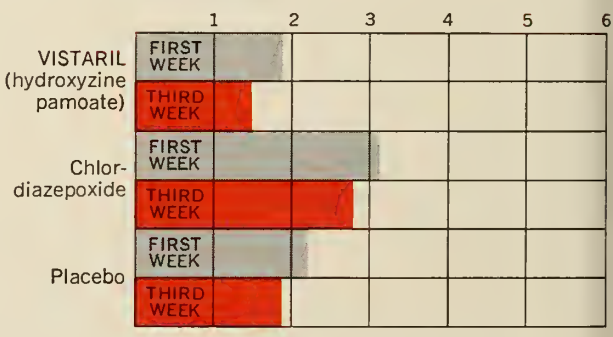


OVERALL DECREASE IN GUILT FEELINGS (%)

VISTARIL (hydroxyzine pamoate) 34% | Chlordiazepoxide 17% | Placebo 17%

Somatic concern alleviated to minor degree in each group

Composite Rating of Somatic Concern:



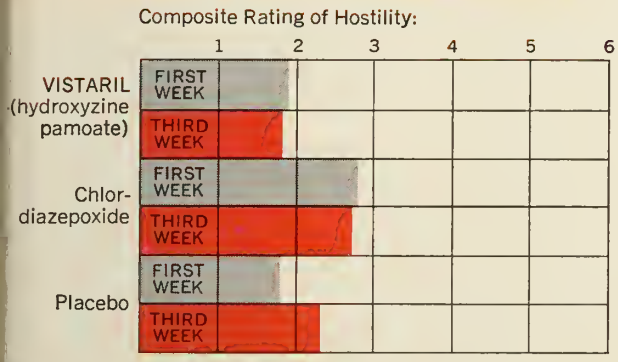
OVERALL ALLEVIATION OF SOMATIC CONCERN (%)

VISTARIL (hydroxyzine pamoate) 17% | Chlordiazepoxide 13% | Placebo 14%

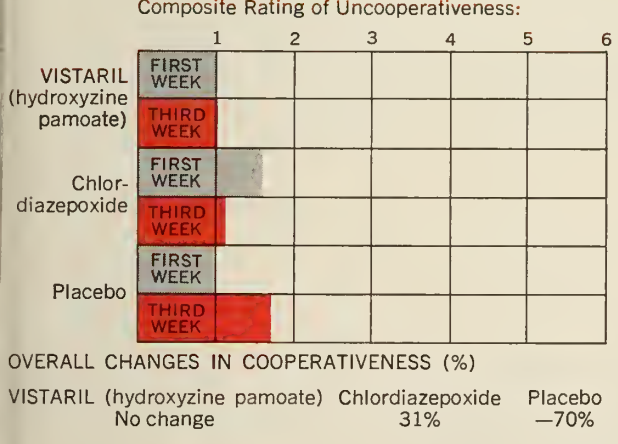
Less drowsiness with Vistaril

	Drowsiness	Dizziness	Mouth Dryness	Increased Motor Activity	Ataxia	Nausea	Comments
VISTARIL (hydroxyzine pamoate)	6 patients (mild)	3 patients (mild)	2 patients (moderate)	—	—	—	Side Effects Not Treated
Chlor-diazepoxide	10 patients (severe in 6)	4 patients (mild)	—	1 patient (moderately severe in first week but gradually subsided)	—	—	Side Effects Not Treated
Placebo	2 patients (mild)	2 patients (mild)	—	—	1 patient (mild)	2 patients (mild)	Side Effects Not Treated

Increase in hostility minimized with Vistaril and chlordiazepoxide



Cooperativeness not a significant problem



In Alcoholism...

Vistaril®

(HYDROXYZINE PAMOATE)

BRIEF SUMMARY

Contraindications: Hypersensitivity to hydroxyzine. The parenteral solution, for intramuscular or intravenous use, *must not* be injected subcutaneously or intra-arterially.

Hydroxyzine, when administered to the pregnant mouse, rat, and rabbit induced fetal abnormalities in the rat at doses substantially above the human therapeutic range. Clinical data in human beings are inadequate. Until adequate data are available to establish safety in early pregnancy, hydroxyzine is contraindicated during this period.

Precautions: Hydroxyzine may potentiate the action of central nervous system depressants such as narcotics and barbiturates. In conjunctive use, dosage for these drugs should be decreased, as much as 50%. Because drowsiness may occur, patients should be cautioned against driving a car or operating dangerous machinery. The usual precautions for intramuscular injection should be followed; soft-tissue reactions have rarely been reported when proper technique has been used. Hydroxyzine parenteral solution for intramuscular use should be injected well within the body of a relatively large muscle. In adults, the preferred sites are the upper outer quadrant of the buttock (i.e., gluteus maximus), or the mid-lateral thigh. In children, preferably the mid-lateral muscle of the thigh. In infants and small children the upper outer quadrant of the gluteal region should only be used when necessary, as in burn patients, in order to minimize the possibility of damage to the sciatic nerve. The deltoid area should be used only if well developed, such as in certain adults and older children, and only with caution to avoid radial nerve injury. Injections should not be made in the lower and middle thirds of the upper arm. Aspiration should be done to help avoid intravascular injection. On reported intravenous injection a few instances of digital gangrene have occurred distal to the injection site, considered to be due to inadvertent intra-arterial injection or possibly periarterial extravasation. Therefore, particular caution (aspiration and site injection) should be observed to insure injection only into intact veins; avoid either intra-arterial injection or extravasation. Intravenous administration should be accomplished slowly, no faster than 25 mg. per minute, and not to exceed 100 mg. in any single dose. In order to avoid possible adverse effects it is recommended that hydroxyzine parenteral solution be diluted to at least 50 cc. with sterile normal saline and administered over a period of four minutes or more, preferably into the tubing of a running intravenous infusion.

Adverse Reactions: Drowsiness may occur; if so, it is usually transitory and may disappear in a few days of continued therapy or upon dosage reduction. Dryness of the mouth may occur with higher doses. Involuntary motor activity, including rare instances of tremor and convulsions, has been reported, usually with higher than recommended dosage.

When this product is given intravenously undiluted, minimal amounts of intravascular hemolysis occur at the site of injection. Giving the maximum recommended intravenous dose (100 mg.) to adults results in immediate transient hemolysis with the liberation of a total of 2-3 grams of hemoglobin, which, in some individuals, can cause small amounts of hemoglobinuria. This compares with the normal red cell destruction from which approximately 8 Gm. of hemoglobin are liberated every 24 hours. If the hydroxyzine is diluted with 50 cc. of normal saline and given during a period of four minutes or more, this phenomenon does not occur.

Supply: Vistaril (hydroxyzine pamoate) Capsules: Equivalent to 25 mg., 50 mg., 100 mg. hydroxyzine HCl. Vistaril (hydroxyzine pamoate) Oral Suspension: Equivalent to 25 mg. hydroxyzine HCl per 5 cc. teaspoonful. Vistaril (hydroxyzine HCl) Parenteral Solution: 25 mg./cc.—10 cc. vial and 50 mg./cc.—2 cc. and 10 cc. vial; Isoject,® 25 and 50 mg. per cc., 1 cc. per unit.

More detailed professional information available on request.

Reference: 1. Knott, D.H. and Beard, J.D.: GP 36:118, September, 1967.

Pfizer LABORATORIES DIVISION
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Night Leg Cramps . . . Unwelcome Bedfellow

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now . . . specific therapy for night leg cramps

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Consistently effective, QUINAMM provided complete relief in 94% of 200 patients studied, many of whom were severe cases refractory to other medication.[3] Your prescription for one tablet at bedtime often controls painful night cramps with the initial dose . . . helps restore restful sleep.

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Prescribing Information: Composition: Each white, beveled, compressed tablet contains: Quinine Sulfate 260 mg. and Aminophylline 195 mg. **Contraindication:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.
References: 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et al.: Angiology, 12:102, 1961. 3. Rawls, W., et al.: Med. Times, 87:818, 1959.
6/67 Q-706A

EXPANSION OF MEDICAL EDUCATION PROGRAMS IN THE STATE OF ALABAMA

November 20, 1967

Mr. Charles M. Cooper, Director
State of Alabama
Legislative Reference Service
Montgomery, Alabama

Dear Mr. Cooper:

Submission of this report completes our work on this assignment for the State of Alabama as authorized in the contractual agreement between the State of Alabama and our firm executed July 25, 1967.

Based on our findings and analysis, Alabama faces a very severe deficit in the number of physicians it needs today, as well as in the future. Efforts to remedy the situation will need to be both rapid and comprehensive if significant improvement can be expected. Efforts to expand medical education programs will also have to be directed toward all phases of medical education, including graduate, post-graduate, and continuing medical education, as well as undergraduate schools of medicine.

The plan for expanding medical education programs, as set forth in this report, provides for expansion as rapidly as resources can be made available. Most importantly, the plan exploits strengths of existing medical education institutions, as well as capitalizes on the emerging strengths of other institutions. Much additional detailed planning will need to be undertaken and should be started immediately. However, all plans should be developed within the guidelines of the over-all plan for the State.

We have appreciated the interest and cooperation of all persons whom we contacted throughout the state. Their assistance has contributed significantly to the successful completion of the assignment. The work has been challenging and satisfying, and we will welcome the opportunity to be of further assistance to the State of Alabama.

Very truly yours,

BOOZ, ALLEN & HAMILTON, INC.

I. Medical Manpower In The United States

The growing need for additional medical manpower is reaching critical proportions throughout the nation. Alabama's own problems of providing adequate medical manpower are intensified by the increasing national needs and the resulting completion among the states. Thus, an understanding of the national situation is essential for an objective examination of the system for medical education in Alabama.

1. NEED FOR ADDITIONAL MANPOWER

More than three million persons are employed in the health industry, and some predictions are that by 1970 health services will require a larger proportion of the United States manpower than any other industry. The public demand for health services continues to increase as does the public concern with rising costs of such services. These two facts, in addition to remarkable technological advances, result in new services and benefits. To make these services and benefits available to all citizens, additional numbers of qualified professional manpower are needed.

(1) The Preparation of Physicians and Other Health Personnel Is Not Adequate To Meet National Demands.

The increasing public demand for physician and other medical services has resulted in major shortages of trained manpower in all categories. The United States Public Health Service estimates a present national shortage of 50,000 physicians. The need is specially acute in the poverty areas of our cities and in many rural communities. Although the numbers of available physicians are increasing, these are not adequate to meet the full present and foreseeable future demands.

(2) The Ratio of Physicians to the Population Has Been Increasing Modestly Since 1930, but It Has not Kept Pace with the Growing Demands

Physician to population ratios are a commonly used method of expressing the gross availability of medical care to the public. These ratios are valuable tools for determining general trends, but they do not consider factors such as distribution and economics. Physician to population ratios should be used with caution in determining the national ability to meet public medical care demands. Statistics from the American Medical Association and the United States Bureau of Census indicate that the national physician to population ratio has increased slowly from 124 physicians per 100,000 people in 1930 to 144 physicians per 100,000 in 1967. The number of practicing physicians in the United States has grown at a faster rate than the population, but this growth

has not resulted in greater availability of physicians for several reasons:

* Improved economic conditions nationally have created a greater ability of the public to purchase care, thereby increasing demand for physician services.

* Increasing numbers of physicians are working in administration, research, public health, government, and teaching. The increasing needs in these categories will continue to reduce the number of private practitioners available to provide direct patient care. In late 1966, more than 19,000 of the 286,000 known active physicians were engaged in nonpatient care activities.

* Physicians are attracted to metropolitan areas in large numbers for a variety of reasons, including the opportunities afforded by medical centers and major hospital facilities, as well as the availability of other specialists and opportunities for education. Currently, 84.5% of all physicians are located in metropolitan areas, compared to only 72.4% of the population living in metropolitan areas.

* Movement of physicians from rural to urban areas has resulted in acute physician shortages in many of the less populated areas of the country.

(3) The physician to Population Ratio Is Not Expected To Increase Significantly Through 1975

Available data from the United States Public Health Service indicate that the total number of physicians will increase to approximately 348,200 in 1975. While this is a significant increase for the nine-year period, the Public Health Service continues to predict a national shortage of approximately 51,800 physicians in 1975.

2. INCREASING PUBLIC DEMAND

In order to adequately meet the increasing public demand for health services, there are two approaches: (1) increasing the amount of manpower and (2) increasing the level of productivity.

(1) The Numbers of Physicians and Other Health Personnel Can Be Increased

Major efforts are currently being made to increase the numbers of health care personnel in the United States. Primary effort centers on raising the enrollment levels of existing medical schools and inaugurating new medical education programs. Other methods of increasing the nation's ability to meet public demand are also being considered, such as educational programs for developing physician assistants, nurse midwives, and many others.

(2) Productivity of Physicians and Other Health Personnel Can Be Increased

The increasing demand for health services, as well as improved quality and economy can be met by increasing the productivity of health manpower. Systems analysis is a technique that has been used successfully in industry and major effort is being made to adapt systems analysis for hospitals and physicians to more closely maximize utilization of resources. Some authorities have suggested that the highest priority for systems analysis relating to health manpower is to make the existing manpower more productive.

Group practice will continue to grow and multispecialty clinics will tend to replace single offices where doctors now practice alone. Computer techniques may become standard instruments for assisting in diagnosis, treatment, education, and research.

3. UNDERGRADUATE EDUCATION

Undergraduate medical education must be recognized as representing only one element in the system that produces practicing physicians. It is a key element that deserves primary consideration, but in the absence of additional elements, it does not alone produce an acceptable number or quality of physicians.

(1) Medical Education Extends from Entry into Medical School Through Continuing Education of the Practicing Physician

The System encompasses four major areas:

* Medical school education, the four-year academic element following the period of premedical preparation, provides training both in the basic sciences and the clinical sciences on which the practicing physician will rely most heavily in his actual practice of medicine.

* Graduate medical education, or the period of internship and residency training, takes place immediately following the medical school and introduces the physician to the practice of medicine.

* Post-graduate education is an extension of academic training for the physician wishing to obtain an advanced degree in a non-clinical field such as physiology, chemistry, physics, or anthropology.

* Continuing education is that element of medical education designed to provide the practicing physician with the opportunity to maintain and acquire medical knowledge and skills.

Seven to eleven, or more years of education are required to provide basic education for a practicing physician. The physician will then need continuing opportunities to expand his knowledge and maintain his skill.

(2) The Medical Education System Must Maintain Balance To Assure an Increase in the Numbers of Qualified Physicians for a Specific Geographic Area

To ensure that the numbers of available physicians in a particular area increase, it is necessary to maintain a balance of all the elements in the medical education system. Opportunities for graduate education must be available to prepare the medical school graduate for practice. Postgraduate programs must be available to maintain an adequate supply of teachers and research investigators. Continuing education is essential to maintain standards of medical practice. A breakdown in any of the elements disrupts the entire system and limits the capacity to produce qualified physicians who will assist in meeting the public demand for medical care.

(3) University Medical Schools Must Serve as Focal Points for the Medical Education System

All elements in the system of educating physicians need to center on the university medical school with affiliated hospitals, clinics and other elements of the system concerned with education. Graduate and post-graduate programs should be

regarded as a continuum of medical education with the medical school maintaining responsibility for ensuring that the internship and residency periods meet acceptable standards. Continuing education for the practicing physician is also a major responsibility of the medical school and affiliated institutions.

The 1965 report to the Association of American Medical Colleges, "Planning for Medical Progress Through Education," by Lowell T. Coggeshall, M. D., states, ". . . Perhaps the clearest implication of emerging trends is the need for medical education in all its aspects to center in the university. As just noted, only the university can integrate instruction and research. The university alone comprises all the fields of knowledge and disciplines related to health. The university alone can encompass the education required for all health fields. Only through the university—the locus of research—can the full benefits of scientific advance be brought to the future physician and the practitioner."

* * *

This chapter has provided a brief review of some of the most important characteristics regarding medical manpower nationally. The following chapter will examine the situation as it exists within the State of Alabama.

II. Alabama's Medical Education Needs And Opportunities

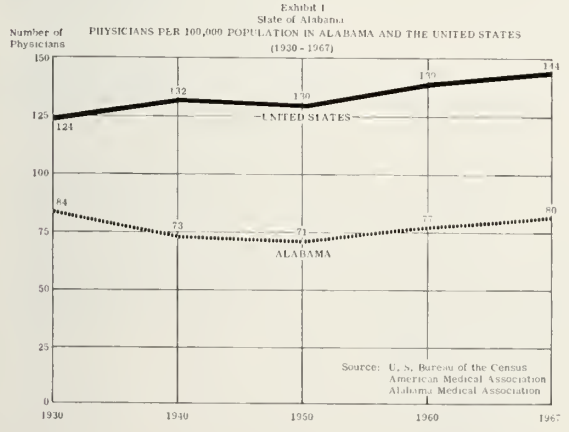
Alabama faces critical problems in providing sufficient numbers of medical manpower. Not only are there severe shortages of physicians as well as other health personnel, but there are problems of the distribution of manpower among various areas of the state. This chapter examines the requirements of Alabama for physicians and outlines basic criteria for medical education in the state.

1. ALABAMA VERSUS NATIONAL AVERAGE

The ratio of physicians to population in Alabama is well below the national average.

(1) The Ratio of Physicians to Population Is Well Below the National Average

Data from the American Medical Association, Alabama Medical Society, and the United States Bureau of Census indicate that Alabama has only 80 physicians per 100,000 population, compared to the national average of 144 physicians per 100,000 population. The comparative figures have remained fairly stable as indicated in Exhibit I.



As noted previously, such ratios do not necessarily present a completely accurate picture. However, the deficit shown in Alabama's ratio of physicians to population is so great that it seems rather pointless to dissect the absolute degree of criticality.

(2) The Alabama Physician-to-Population Ratio Has Increased Modestly Since 1950, but Is Still Less than It Was in 1930

The number of physicians per 100,000 population in Alabama has increased from 71 in 1950 to 80 in 1967, showing some improvement. However, in 1930, there were 84 physicians per 100,000 population. These figures indicate two major conclusions:

* The physician-to-population ratio in Alabama has actually decreased from the 1930 level, while the population has grown rapidly and will continue to grow at a fast pace.

* Alabama's physician-to-population ratio, in comparison with the national ratio, has grown steadily worse from 1930 to the present and will continue to become even more unfavorable unless immediate action is taken.

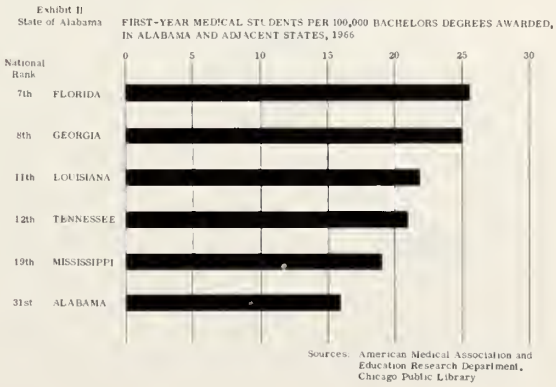
2. STUDENTS IN MEDICAL EDUCATION

With regard to attracting potential students, Alabama occupies an unfavorable position in comparison with other selected southeastern states and ranks poorly in its national position.

(1) Fewer Alabama College Graduates Attend Medical School Than Do Graduates of Other Southeastern States

One of the bench marks used to gauge the success with which potential medical students are being recruited is the ratio of entering medical students to the number of bachelor's degrees awarded. Alabama compares unfavorably with neighboring states in this regard.

On the basis of 1966 figures from the American Medical Association, as shown in Exhibit II, Alabama had 15.9 first-year medical students per 100,000 bachelor's degrees awarded and ranked 31st nationally. Alabama ranked behind Florida, Georgia, Louisiana, Tennessee, and Mississippi in the number of medical students compared to graduating college students.



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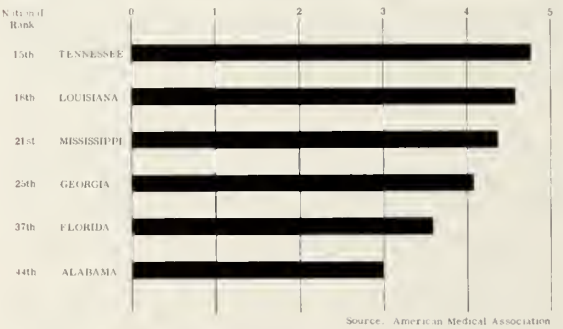
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(2) **Alabama Has Fewer Medical Students per 100,000 Population than Other Southeastern States**

Alabama ranked 44th nationally in 1966 in the numbers of entering first-year medical students compared to state population. Alabama had only 3.0 students per 100,000 population and ranked behind Tennessee, Louisiana, Mississippi, Georgia, and Florida in this regard, as shown in Exhibit III. As noted previously, ratios of manpower to population have value only as tools of comparison and may be affected by many uncontrolled variables. However, it is particularly pertinent to realize that the ratio of medical students to population does not necessarily indicate that the students will become practicing physicians in the state unless all elements of the medical education system are functioning appropriately.

Exhibit III
State of Alabama

ENTERING FIRST-YEAR MEDICAL STUDENTS PER 100,000 POPULATION FOR ALABAMA AND ADJACENT STATES, 1966



Source: American Medical Association

3. DRAWING FROM OUTSIDE PHYSICIANS

An analysis of membership information from the Alabama Medical Society indicates that there is a heavy dependence on out-of-state medical education programs for the provision of health care in Alabama.

(1) **About Three-Fourths of All Alabama Physicians Received Their Undergraduate Medical Education Outside the State**

Of the 2,521 members of the Alabama Medical Society, 1,870 or 74.2% received their undergraduate training in schools outside the state. This condition exists even though Alabama has had education for physicians since the late 1800's and some states have had no medical schools and must be complete debtors in the acquisition of physician services. It is important to recognize that significant numbers of medical students were not trained in Alabama until the 1930's.

(2) **The Ability To Attract Out-of-State Physicians to Alabama Is Likely To Be Reduced as National Needs Continue To Rise**

Alabama's past ability to attract out-of-state physicians should not be expected to continue at the present rate. Although there will and should always be an exchange of trained physicians with other states, a trend toward less in-migration should be expected unless corrective action is taken. Other states with growing demands for health services are making substantial efforts to retain or attract physicians, thus increasing the competition. Alabama also has relatively few graduate medical education programs, with the ex-

ception of those in Birmingham, and it has been demonstrated that physicians tend to go into practice near the areas where they complete their graduate training.

4. POPULATION INCREASING

Growth is an outstanding feature of Alabama's population, its educational resources, and the demand for educational opportunity. Present and projected growth of population and of numbers of college and university graduates and applications to the University of Alabama Medical College is substantial.

(1) Alabama Population Is Expected To Exceed 4.5 Million by 1985

Current projections for the state by the United States Bureau of Census indicate a marked growth from 3.49 million people in 1967 to 4.55 million in 1985, as shown in the following table:

PROJECTED POPULATION FOR THE STATE OF ALABAMA

Year	Projected Population
1967	3,490,000
1970	3,650,000
1975	3,920,000
1980	4,220,000
1985	4,550,000

Primary growth areas for Alabama will be the major metropolitan areas, particularly the Huntsville area in the northern part of the state and Mobile area in the south. This rapid population growth will unquestionably contribute to the already serious health manpower situation in the state, which must be dealt with immediately if a solution is to be found in time to meet the problem.

(2) The Number of Graduates of Colleges and Universities in Alabama Is Expected To Reach 9,000 per Year by 1985

Current projections based on average enrollment increases since 1961 indicate that the number of graduates per year from Alabama colleges and universities will increase from 7,600 in 1965 to approximately 9,000 in 1985, for a total increase of 19% between 1965 and 1985. Some authorities feel these projections are conservative and that the number of graduates will more than double.

PROJECTED NUMBER OF GRADUATES OF ALABAMA COLLEGES AND UNIVERSITIES

Year	Number Of Graduates
1960	6,346
1965	7,600
1970	7,962
1975	8,324
1980	8,686
1985	9,048

The increase in the number of graduates will be a prime factor in assuring a source from which qualified medical school applicants can be drawn. It should not be expected, however, that more graduates will necessarily mean more medical school applications.

(Continued on Page 797)

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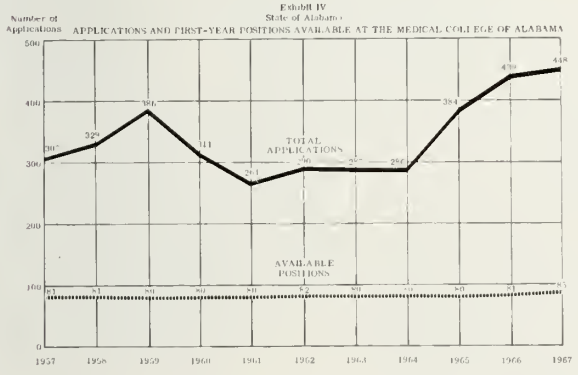
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(Continued from Page 795)

(3) The Number of Applications to the University of Alabama Medical College Has Increased Over-All in the Past Ten Years

Applications to the University of Alabama Medical College have increased considerably in the past ten years, but there has been no remarkable change in enrollment since 1952. Since that time, between 80 and 85 students have been admitted to the freshman class each year.

* The number of applications to the Medical College has grown from 307 in 1957 to 448 in 1967, an increase of nearly one-third, as presented in Exhibit IV.



* On the basis of an average net increase of 54 applications per year, it is projected that there will be approximately 600 applications per year by 1985. It is reasonable to assume that even more applications would be received if additional positions were available and a major recruiting effort made.

On the basis of the present acceptance rate of about one out of five, this projected number of applicants would provide for at least 140 qualified first-year positions in 1985.

5. NEED FOR PHYSICIANS INCREASING

A growing population, improving economic conditions, and a period of rising social expectations are all prime factors that will accentuate the need for additional physician manpower.

(1) The Number of Physicians Will Need To Be Increased by 580 To Parallel the Rising State Population Projections

In order to even maintain the present ratio of physicians to population through 1985, it will be necessary to realize a net addition of 580 practicing physicians. This addition would only assure the state of maintaining the status quo.

(2) About 1,100 More Doctors Are Needed in Alabama To Achieve the Present National Ratio of Physicians to Population

In order to simply achieve the national ratio of 144 physicians to 100,000 population, about 1,100 additional physicians are needed immediately in Alabama. This figure is based on 1967 data and does not provide for the continual increases that will need to be realized to maintain that favorable ratio. Thus, the question of precisely how many medical students should be trained becomes academic. Rather, the question becomes that of how many qualified applicants can be attracted, trained, and retained utilizing the resources which the state is willing to provide for medical education.

6. EDUCATION SHOULD MEET REQUIREMENTS

The feasibility of expanding medical education in Alabama is being considered at a time when health care needs of the state and nation are expanding at an unprecedented rate. This is also a time when medical education is in transition.

The people of Alabama should expect medical education in the state to be comparable quality to other institutions of excellence throughout the United States.

(1) Medical Education in Alabama Should Meet National Requirements and Standards

As medical education is expanded in Alabama, it should be aimed at making a significant contribution toward meeting national needs for competent health manpower. Significant contribution toward meeting national health needs and requirements must also be indicated in order to qualify for federal funds to assist in the development of additional programs.

(2) Medical Education in Alabama Should Be Designed To Meet Objectives of the State

Additional medical education programs in Alabama would function as public institutions supported by public funds, making it essential that objectives of the entire state be met. The people of Alabama have a significant financial investment in the existing University of Alabama Medical College, and any planned programs should complement these existing programs and should not be developed at the expense of existing programs.

Should additional medical education programs be planned and sponsored by the State of Alabama, it should assume specific responsibilities by:

* Preparing physicians for the practice of medicine.
* Providing educational opportunities in the health field for men and women from Alabama.
* Providing a demonstration of excellence in medical care to help elevate standards in Alabama and the Southeast.
* Meeting the health care needs of eligible patients.
* Working with existing educational and health institutions and other agencies and institutions in Alabama to provide needed health care to residents.

(3) Medical Education in Alabama Should Provide Programs of Appropriate Scope and Depth

The programs of medical education should be planned for broad scope, high quality, and balanced emphasis. It should be possible for instructional programs of the medical school to be conducted as a continuum extending from the first year of undergraduate study, through graduate and postgraduate study and continuing until retirement. A physician should be able to regard the medical school as his continuing education center.

Programs in medical education should include well-organized research activities. These research



activities should involve faculty members, medical students, graduate students, fellows, and practicing physicians. Research efforts should be comparable in quality to those of leading universities across the nation. Medical education programs should also set a standard for other hospitals and health agencies in Alabama with regard to the quality of patient care provided. Patient care programs should be comprehensive, to provide the maximum educational benefit for students.

(4) Medical Education Programs Should Be Able To Attract Sufficient Numbers of Qualified Applicants

The number of students should be comparable with other medical schools. Particular effort should be made to attract those students who are likely to remain in Alabama to practice medicine.

The admission policies of a medical school should ensure students of high quality. Scholarship funds should be made available to qualified students who might otherwise be unable to pursue a medical education.

(5) Medical Education Programs should Be Able To Attract and Retain Well-Qualified Faculty

There is an acute shortage of well-qualified medical teachers in the United States. Additional medical education programs should be able to attract and retain the highly qualified faculty they need in a highly competitive market. Since a medical school and its teaching hospitals should serve as a major referral center for patients requiring specialized treatment, the faculty should be sufficiently eminent to attract referrals from physicians in private practice.

Faculty members should be employed according to the requirements of the medical school. However, they should be able and willing to spend part of their time helping to plan programs and preparing nonmedical students for health careers.

Faculty members should look favorably upon working with faculty of other schools of a university in joint research projects. Perhaps most importantly, the faculty of a medical school should be conveniently available to the faculty of a strong graduate school in order to facilitate interdisciplinary and joint research projects.

(6) Medical Education Programs Should Be Able To Attract the Number and Variety of Patients Required To Achieve Medical School Objectives

Medical education programs in Alabama should be able to attract the number and variety of teaching patients required for instruction of undergraduate students, interns, residents, and clinical fellows. It should be possible to establish affiliations with neighboring hospitals to provide access to teaching patients that cannot be attracted to the medical school's primary teaching hospital, to provide students with opportunities to learn in a variety of institutional settings, and to aid these other hospitals in improving their educational and patient care programs.

Patients should come to a medical center not only as referrals from considerable distances for unusual medical conditions, but also from the vicinity of the primary teaching hospital. Patients from the primary teaching hospital should provide students with needed experience in the treatment of more common medical disorders.

(Continued on Page 802)

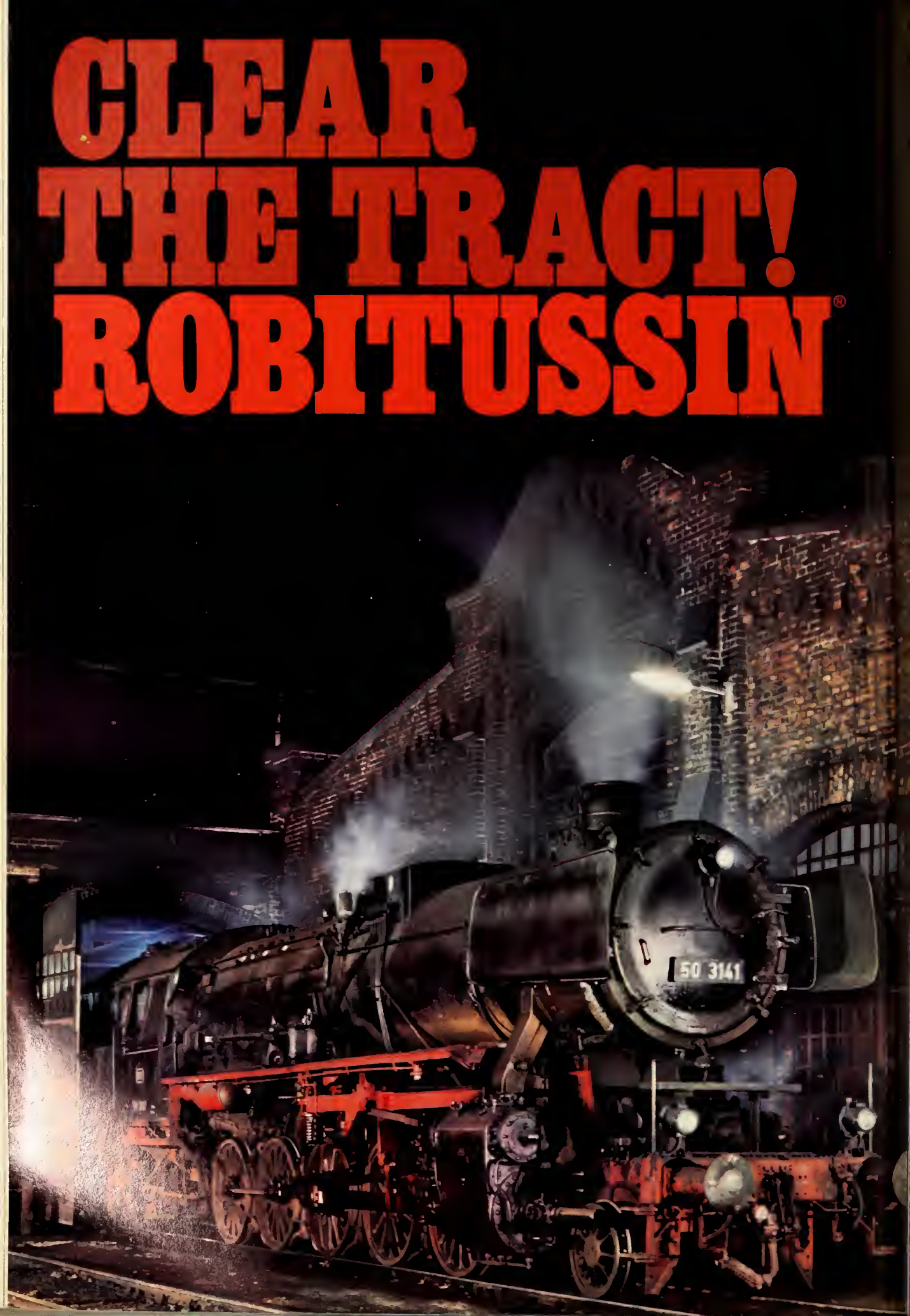


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(Continued from Page 798)

Patient care at the medical center should be comprehensive, and patients should be able to benefit from the diversified talents available in a medical school and its affiliated hospitals. Students should be able to benefit from experience received in a team approach to patient care.

(7) Medical Education Programs Should Be Supported by Adequate Facilities for Instruction, Research, and Patient Care Needs

Facilities for a medical school should be planned to complement other objectives. The facilities, land, buildings, and equipment should be selected or designed to function flexibly and permit optimal usage, and should be adaptable to accommodate future program changes.

Facilities for a medical school should be started with a basic sciences building for instruction and research in the health sciences. The building should include offices, classrooms, laboratories, its own library, and related rooms. The basic sciences building should have relatively easy access to the primary teaching hospital. It should also have access to other components of the university, to enhance interdisciplinary instruction and research.

A primary teaching hospital should be near the basic sciences building. It is desirable that the hospital be under the control of the medical school. A good teaching hospital requires at least one-third more over-all space than a nonteaching hospital with the same number of beds, because faculty and students require work, conference, and other instructional areas throughout the hospital.

Under the most desirable circumstances, a Veterans Administration hospital, a mental health center, a chronic disease hospital, and other specialty health facilities should be situated on or near the campus where the medical school is located.

(8) Medical Education Programs Should Establish and Maintain Sound External Relationships

It should be demonstrated that the selected community would welcome a medical education facility and the people associated with it. A favorable reception from the neighboring university practicing physicians, local government, community hospitals, and private enterprise in the community should be assured. In return, a medical school should be able to extend its services and leadership influence to the community and beyond.

III. Current Strengths And Problems Of Medical Manpower In Alabama

An analysis of existing factors in Alabama's efforts to supply physician services reveals several areas where major problems should be resolved. Present and future effectiveness of the system for providing services depends on the ability of the state to resolve problems and take advantage of existing strengths in organization, planning, and support of the medical education system.

1. MEETING DEMAND FOR MEDICAL SERVICES

Both the distribution and numbers of physicians in Alabama are elements of the problem of supplying the required state-wide services being demanded. While these can be recognized as problems common to many states, there are still routes that can be taken to rectify the problems to some degree.

(1) The Movement of Physicians in the Metropolitan Areas Worsens an Already Critical Problem in Rural Areas

Exhibit V gives some indication of the distribution of practicing physicians between metropolitan and nonmetropolitan areas throughout the state. It is important to note that the numbers of physicians exclude employees of the federal government, inactive doctors, and those engaged primarily as full-time medical school faculty, in administration, or in research.

Alabama follows the national pattern in that the physician-to-population ratio for metropolitan areas is about twice the ratio for nonmetropolitan areas. However, in Alabama, the nonmetropolitan ratio of 46.3/100,000 means that there is only one practicing physician for every 2,160 persons, compared to one practicing physician for every 1,400 persons in nonmetropolitan areas nationally.

This lack of physicians in nonmetropolitan areas very probably means that some persons in rural communities are literally without medical care or at best have very limited access to physi-

EXHIBIT V

STATE OF ALABAMA
DISTRIBUTION OF NONFEDERAL PHYSICIANS ENGAGED IN DIRECT PATIENT CARE IN SELECTED METROPOLITAN AREAS[1]

December 1966

	Estimated Population	Number of Physicians	Patient Care Physicians per 1,000 Population
Metropolitan Area[2]			
Anniston	103,000	50	48.5
Birmingham	677,400	865	127.7
Florence	117,100	89	76.0
Gadsden	106,300	72	67.7
Huntsville	216,800	135	62.3
Mobile	409,600	346	84.5
Montgomery	214,000	186	86.9
Tuscaloosa	117,900	100	84.8
Total Metropolitan Areas	1,962,100	1,843	93.9
Nonmetropolitan Areas	1,487,800	689	46.3
State Total	3,449,900	2,532	73.4
National Ratios			
Metropolitan Areas[2]			145.0
Nonmetropolitan Areas			71.3
Total U. S. and Possessions			124.7

Notes:

[1] Excludes full-time faculty, research and nonpatient activity.

[2] As defined by Sales Management, Inc.—an urban county or counties with a resident population of 100,000 or more.

Source: **Distribution of Physicians, Hospitals and Hospital Beds in the U. S.**, American Medical Association, 2 Volumes 1966.

cians. Indicative of the problem are the efforts of the state in recent years to provide a health officer for each county. Currently, there are several counties still without a health officer.

(2) **Additional Physicians Are Needed as Rapidly as Possible**

As noted in the previous chapter, a net addition of about 1,100 doctors is needed now simply to bring the ratio of doctors to population up to the national average. This does not include the need to replace those physicians who become inactive or leave the state.

On the other hand, education of a physician requires seven to nine or more years following premedical undergraduate schooling; this involves four years of medical school, one year of internship, and from two to six years or more of residency training.

(3) **Alabama Cannot Continue To Rely on Attracting Large Numbers of Doctors from Other States**

As noted earlier, Alabama has relied heavily on attracting to the state physicians who have attended medical school elsewhere, and currently three-fourths of all members of the state medical society are graduates of medical schools outside Alabama. Continued reliability of these resources is limited by increasing competition for physician services throughout the United States. As other states improve their health services and opportunities for doctors, Alabama cannot continue to rely on in-migration as a major source of physicians.

2. COORDINATING RESOURCES NOT CLEAR

At the present time, no central force is responsible for assuring maximum utilization of all state health resources and facilities. Under the present system, there is considerable opportunity for overlapping duplication and fragmentation of facilities and services.

The State Health Department is the prime unit in Alabama that is responsible for serving public health needs, but it is not coordinated closely with the education and training of health manpower. Coordination of federal health programs appears to be administered by that state unit whose functional role most closely fits a particular federal health program, with relatively little coordination among programs.

Area-wide planning for metropolitan sections and state-wide planning for health facilities and programs do not operate within a coordinated pattern. The lack of a central focus or force handicaps the state in assuring the effective use of all available resources. Some preliminary organization has been undertaken with regard to the federal program for comprehensive health planning, but no state-wide system has been developed.

3. PROBLEMS IN UNDERGRADUATE EDUCATION

There are definite areas where Alabama has developed strength in the provision of medical education, but these strengths must be capitalized on and allowed to grow. These strengths and the existing and future problems are considered to be in the following areas.

(1) **The University of Alabama Medical College Has Developed into an Institution of High Quality and Regard in the Southeast**

(Continued on Page 804)

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(Continued from Page 803)

The present quality of medical education at the University of Alabama Medical College compares favorably with that of other outstanding medical colleges in the United States, on the basis of several pertinent indicators.

* The college enjoys a favorable ranking among graduates taking the National Board Examination throughout the country, with student scores showing decided improvement following exposure to the medical college curriculum. Although students of the Medical College have generally ranked below the national average in Part I of the National Board Examination (taken at the end of the first two years), their performance is comparable to the national average following completion of four years of medical school. It should be noted that the favorable ranking of graduates is achieved in spite of the fact that applicants to the Medical College (enrolled and rejected) rank well below the national average in their scores on the Medical College Aptitude Test Material.

* Many members of the medical college faculty have established national reputations that serve to enhance the standing of the school and attract candidates of superior quality for faculty and student positions.

* The college has enjoyed considerable success in obtaining national study grants for research and other activities, indicating that the standards at the college are at a level acceptable for its designation as a site for research and development and are at least comparable with other medical centers.

(2) **There Is an Imbalance Between New Medical Students Leaving the State and Those Entering Alabama**

In 1966, 34 Alabama students entered medical school in other states. Significantly, these students showed no particular pattern as to the out-of-state schools in which they enrolled. While it might well be expected that many students would wish to go elsewhere for medical school, only nine students from outside the state enrolled at the University of Alabama Medical College. A more satisfactory pattern would show a balance of those students leaving the state with those entering.

(3) **The Medical College Lacks Coordination Among Its Sources of Revenue**

Like other medical schools, the Medical College depends on many sources of revenue which are not coordinated and are not necessarily responsive to the total requirements of the medical school.

In 1966-1967, the total budget of the Medical Center was slightly more than $32 million. Major sources of revenue included: state appropriation—21%, research grants—35%, and income from patients—41%. Two important factors should be noted regarding research grants and patient income:

* On the whole, research grants appear to require about $1 of local matching or cost-sharing funds for each $4 of grant obtained. Further, grants are nearly always awarded on the basis of demonstrated competence and quality of education and other research programs.

* Patient income is derived largely from insurance, so-called "agency patients," and "staff" patients. In the latter two cases, patient bills may be paid through other state agencies, county or city government, or any number of other sources. It has been reported that if Jefferson

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Wm. Ray Griffin, Jr., M. D.
Robert A. Griffin, M. D.

Mark A. Griffin, Sr., M. D.
Mark A. Griffin, Jr., M. D.

County builds a separate hospital, revenue of the Medical Center could be reduced by as much as $3.5 million a year.

(4) **Immediate Expansion of the Medical College and Related Facilities Has Been Somewhat Curtailed for Lack of Funds**

The Medical College is now planning to add 20 more students per class as soon as the new basic sciences structure is completed. This will be the first significant expansion of the student body in at least 35 years. It should also be noted that, in spite of rapidly rising costs, the 1967-1968 state appropriation for the Medical Center was only 2.2% higher than the amount received in 1966-1967 (excluding the College of General Studies). However, rapidly increasing requirements for medical education have been recognized in that the amount of state appropriation more than tripled between 1958 and 1967.

It is reported that the Medical Center may forfeit three federal grants through lack of matching funds. Specifically:

* A grant of approximately $857,000 is committed for expansion of the Spain Rehabilitation Center.

Required matching funds of $285,000 have not been obtained.

* Grant funds of about $1,144,000 are committed for the Collegiate School of Nursing. Matching funds of $907,000 have not been obtained and the grant will be forfeited if the building is not under contract by April 30, 1968.

* A recent commitment of $952,000 has been made for establishment of a regional technical institute for allied health personnel. Matching funds of $238,000 are required, but have not been obtained.

Obviously, if the number of medical students graduated in Alabama is to be significantly increased, major additional income must be identified, regardless of the source or the means used to expand undergraduate medical education.

4. GRADUATE EDUCATION WEAKNESSES

A vital part of the medical education process is the graduate phase, in which new physicians begin the internship and residency portion of their total education. It is important to point out again that graduate medical education must be strong if the state expects to retain these potential practicing physicians. The lack of a strong state graduate education system will cause the new medical graduate to move to other areas that can offer the desired quality of internships and residencies.

(1) **There Are a Limited Number of Graduate Medical Education Opportunities at the Internship Level**

Although 137 internships are offered by six hospitals, only 77 of these are offered by two hospitals affiliated with the Medical College in Birmingham. Further, only 67 of the 137 positions were filled. An analysis of the available internships, shown in Exhibit VI, reveals the following information:

* Fifty-seven internships are offered by the Medical Center Hospital in Birmingham.

* Twenty internships are offered at the Mobile General Hospital in Mobile, which is affiliated with the Medical College, although the hospital is not considered a primary teaching hospital.

* The remaining 60 non-affiliated internships are distributed as follows: 46 in Birmingham and 14 in Fairfield, a suburb of Birmingham.

* Only 41 of the 77 medical school-affiliated internships were filled, and only 26 of the 60 non-affiliated internships were filled in the 1966-1967 classes.

* Thus, although 74 students were graduated from the Medical College, there was a net deficit of 7 potential physicians at the internship level in 1967.

(2) **Graduate Medical Education Opportunities at the Residency Level Are Also Limited**

Nine hospitals offer 349 residency positions, of which 255 are offered by three hospitals affiliated with the Medical College.

EXHIBIT VI

STATE OF ALABAMA
INTERNSHIPS AND RESIDENCIES IN ALABAMA HOSPITALS

1967

	Internships		Residencies	
	Approved	Filled	Approved	Filled
Programs in Hospitals Affiliated with the University of Alabama Medical College				
Birmingham (Jefferson County)				
Crippled Children's Clinic and Hospital	-		4	4
University of Alabama Hospitals and Clinics	57	33	213	146
Mobile (Mobile County)				
Mobile General Hospital	20	8	38	22
Total	77	41	255	172
Programs in Hospitals Not Affiliated with the University of Alabama Medical College				
Birmingham (Jefferson County)				
Birmingham Baptist Hospital	24		10	4
Carraway Methodist Hospital	14	10	29	13
Eye Foundation Hospital			6	4
St. Vincent Hospital	8	6		
Fairfield (Jefferson County)				
Lloyd Noland Hospital	14	10	30	16
Tuscaloosa (Tuscaloosa County)				
Druid City Hospital			1	
Tuskegee (Macon County)				
Veterans Administration Hospital			18	3
Total	60	26	94	40
Grand Total	137	67	349	212

Source: **Directory of Approved Internships and Residencies—1967,** American Medical Association (proof copies)

* Of the 255 affiliated residencies, 217 are in Birmingham, and 38 in Mobile.

* The remaining 94 unaffiliated residencies are located as follows: 45 in Birmingham, 30 in Fairfield, 1 in Tuscaloosa, and 18 in Tuskegee.

Of greatest significance is the fact that only 172

of the 255 affiliated residency positions and only 40 of the 94 unaffiliated residency positions were filled.

As in the case of internships, there would appear to be an adequate number of positions, but neither the internships nor residencies are being filled.

5. POST-GRADUATE EDUCATION PROBLEMS

Additional facets of medical education that are necessary to assure adequate numbers of qualified physicians for Alabama are post-graduate education and continuing education programs. As defined, post-graduate training is the phase during which a physician may choose to work toward an advanced degree in non-clinical fields. Continuing education is the on-going education necessary for all practicing physicians to keep them abreast of current medical techniques and practices.

(1) Post-Graduate Education Will Require Major Attention in the Future

Advanced degree programs for physicians who wish to gain additional knowledge in particular areas, while not required in great numbers, are nevertheless an essential element in the system of medical education. This has not been a serious problem for Alabama in the past. However, it is the state's responsibility to ensure that these post-graduate programs are available to produce a nucleus of outstanding teachers and investigators who will perpetuate medical care through teaching and expand the body of medical knowledge.

(2) Continuing Education for Physicians Is a Crucial Element in Assuring the State of a Medical Community That Functions with a High Degree of Competency Throughout Their Careers

No segment of medical education has been emphasized more heavily in recent years than continuing education. The American Medical Association has made great efforts to instill an awareness among our nation's physicians and medical educators of the importance of maintaining a well-informed, up-to-date complement of physicians to serve the country. It is Alabama's responsibility to ensure that the state's physicians are offered the opportunity and urged to participate in programs that will assure the citizenry of high quality, up-to-date medical care. There have been some efforts in this direction in Alabama.

* Continuing education programs are sponsored regularly at the Medical College in Birmingham; however, there is evidence to indicate that they generally do not attract practicing physicians from outside the Birmingham area.

* Some recent experimentation in placing medical students in small communities for short periods of time has resulted in some peripheral benefits to physicians in outlying areas through their participation in the undergraduate program.

Major additional efforts will be needed to provide opportunities for all physicians in the state to participate regularly in good programs for continuing medical education.

* * *

The State of Alabama has major problems regarding medical education. This chapter has examined some of the more crucial problems as background for the development of a systematic, organized plan to combat present limitations and deficiencies.

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IV. A Plan For The State Of Alabama To Meet Future Medical Education Needs

A plan for expansion of medical education and the supply of medical manpower should meet four critical tests. It should (1) expand the number of physicians in the state substantially, (2) add to the supply of physicians as rapidly as possible, (3) provide at all times for maintenance of high standards of education and service, and (4) meet the requirements for a system of medical education as outlined in Section 6 of Chapter II. In order to meet these tests, the plan adopted by the state should take full advantage of existing strengths in the present system and capitalize on emerging strengths of other related institutions.

To accomplish these objectives, the State of Alabama should provide for: (1) maintenance and improvement of the present high standards of the existing programs, (2) development of existing programs to their full potential, and (3) establishment of new programs. The plan should be developed to provide a systematic, integrated approach to medical education in all its elements. In order to implement the plan, the State of Alabama should take the following steps:

1. MAINTAIN PRESENT HIGH STANDARDS

As noted in previous sections, the Alabama Medical College enjoys a reputation for high quality. In order to maintain this level of quality relative to other institutions, increasing resources will be needed. It appears that the proportion of the total Medical Center budget financed from patient income and research grants is nearing the maximum. Consequently, increasing state appropriations will be needed simply to hold the present relative position of the Medical Center.

The State of Alabama should be committed both to adequate financing for the Medical College and to adequate financing of new programs.

2. EXPAND MEDICAL COLLEGE

The University of Alabama Medical College has already planned to expand by 20 students per class. It has potential to expand by at least 25 more per class with relatively little additional requirement.

This means is the fastest, most economical way of increasing the number of medical graduates and should be undertaken as soon as possible.

(1) Expand Enrollment in the Medical College to 100 Students per Class Beginning in 1969

The Medical College has already planned to increase its enrollment to 100 students from the present 80 per class upon completion of the new basic science building. Since contracts are to be let in early 1968, it is possible that the number enrolled in 1969 could be raised to 100.

Tentative estimates indicate that no additional capital funds would be required. Once the expansion is complete, i.e. 80 additional students are on the campus, it is reported that operating fund requirements will be increased by about $730,000 to cover costs of additional faculty and supporting services.

(2) Expand Enrollment in the Medical College to 125 Students per Class by 1970 or 1971

The further expansion of the Medical College to a total of 125 students per class offers the most rapid and economical way to insert additional students into the medical educational system. It would be most desirable to expand to 125 students per class beginning in 1969. However, since additional faculty and facilities will be required, it is unlikely that capital funding and construction can be completed before 1970 or 1971.

Gross preliminary estimates of annual operating expenditures indicate that about $540,000 more will be needed for faculty and supporting services once the further expansion of 25 students per class, or a total of 100 students, is accomplished. It should be noted that the estimated operating expenditures for expansion to 100 and to 125 students per class are in addition to present costs and do not allow for cost increases.

Some additional facilities will be required to expand to 125 students per class. Gross preliminary estimates indicate that an addition to the planned basic sciences building will be required for faculty offices and student laboratories. Capital requirements are estimated to be about $720,000.

Additional medical-clinical facilities also will be needed for offices, classrooms, and teaching laboratories. More detailed study will be required to determine capital fund requirements, since there is some question as to whether it is feasible to expand present facilities. In any event, new medical-clinical facilities are needed for the present program and additional facilities for expansion of the college could be accomplished most economically at that time. Detailed study should be undertaken immediately in order to accomplish a well planned and orderly expansion as rapidly as possible.

3. EXPAND GRADUATE EDUCATION AT MOBILE

The graduate medical education program at Mobile General Hospital is the only major graduate medical education program outside Jefferson County. Presently, it has a limited affiliation with the University of Alabama Medical College. This clinical program should be planned for development in three stages:

* Strengthen the graduate program immediately through closer affiliation with the Medical College,
* Develop later as a clinical center for third- and fourth-year medical students,
* Serve ultimately as the primary clinical facility for a new medical school of the University of South Alabama.

The latter two stages will be discussed further in subsequent sections. However, it should be recognized that the University of South Alabama should be progressively more involved in planning for this program at each stage.

Immediate action should be taken to strengthen and expand the graduate medical education program by:

* Establishment of a formal affiliation agreement with the University of Alabama Medical College.
* Appointment of full-time directors of clinical

services, at least in the four major services, with faculty rank.

* Expansion of the number of internships and residencies as rapidly as warranted by the availability of faculty and qualified applicants.

The graduate medical education program at Mobile General should also serve as a center for continuing education under the initial auspices of the Medical College.

This and preceding sections of this chapter have dealt with recommendations for immediate action to develop and expand existing programs. Subsequent recommendations deal with new programs, all of which will require major cooperative planning efforts to prepare for rapid implementation.

4. NEW BASIC SCIENCES PROGRAM

The basic sciences program at the University of Alabama's main campus is well established and can both profit by and hasten the development of basic science programs for medical education.

(1) Establish, as Soon as Possible, a Two-Year Basic Sciences Program for First- and Second-Year Medical Students

The Tuscaloosa program should be established for additional first- and second-year medical students. It probably should be planned for smaller classes than those at the present Medical College, but the size of classes and the timing should be determined by careful detailed planning. Two main features should distinguish the program from that of a typical two-year medical school:

* The program should be developed as an integral part of a total undergraduate medical education program.

* Students, when accepted, should be considered part of the University of Alabama Medical College and automatically proceed into the third and fourth year.

Additional faculty and facilities will be required and investigation of specific needs should be undertaken immediately. However, additional operating and capital costs would be minimized, since the programs will be developed as extensions of those already existing.

(2) Establish Post-Graduate and Continuing Education Programs for Medical Education in Conjunction with the Basic Sciences Programs at Tuscaloosa

The broad sciences program now established at Tuscaloosa, together with the recommended medical activities, will provide a firm basis for additional post-graduate and continuing medical education programs. Although immediate priority should be placed on development of the undergraduate elements, the advanced programs should be of major concern.

5. CLINICAL PROGRAM

Capitalizing on the then-strengthened and expanded clinical program for graduate students at Mobile, a new clinical science program for third- and fourth-year students should be established in Mobile to open two years following the opening of the basic sciences program in Tuscaloosa. Initially, operation should be under control of the University of Alabama. However, planning should be undertaken jointly with the University of South Alabama. Major requirements include:

* Student capacity equal to the number in the program for first and second year students at Tuscaloosa. However, students from either the Birmingham or Tuscaloosa basic science programs should be accepted at Mobile or Birmingham.

* Additional full-time faculty.

* Clinical science teaching, laboratory and office facilities.

* Some additional space for teaching in the hospital.

* Deliberate effort to direct state supported patients from southern regions of the state to Mobile General Hospital in order to provide adequate clinical teaching material.

* Continuation and further development of the continuing medical education program.

Detailed cost estimates have not been made. However, once again by capitalizing on existing programs, new costs should be minimized because of the new Mobile General Hospital building which can accommodate 500 beds by the addition of patient equipment.

6. GRADUATE AND CONTINUING EDUCATION

New hospital facilities are being developed now in Huntsville and, as a metropolitan center for northern Alabama, graduate and continuing medical education opportunities should be developed as rapidly as warranted by the availability of qualified applicants and after the development of clinical programs in Mobile is assured. However, with the development of the University of Alabama at Huntsville and the leadership of the Medical College, long range plans should be made to accommodate third- and fourth-year medical students following the establishment of a full four year medical school in Mobile.

7. FOUR-YEAR SCHOOL IN MOBILE

As soon as undergraduate as well as advanced degree programs in the basic sciences are well established at the University of South Alabama, a program for first and second year medical students should be established. This program should be integrated with the then existing clinical program for third- and fourth-year students to form a full four-year school in Mobile. The University of Alabama should then withdraw its authority for the clinical programs and full responsibility for all elements of medical education in Mobile should rest with the University of South Alabama.

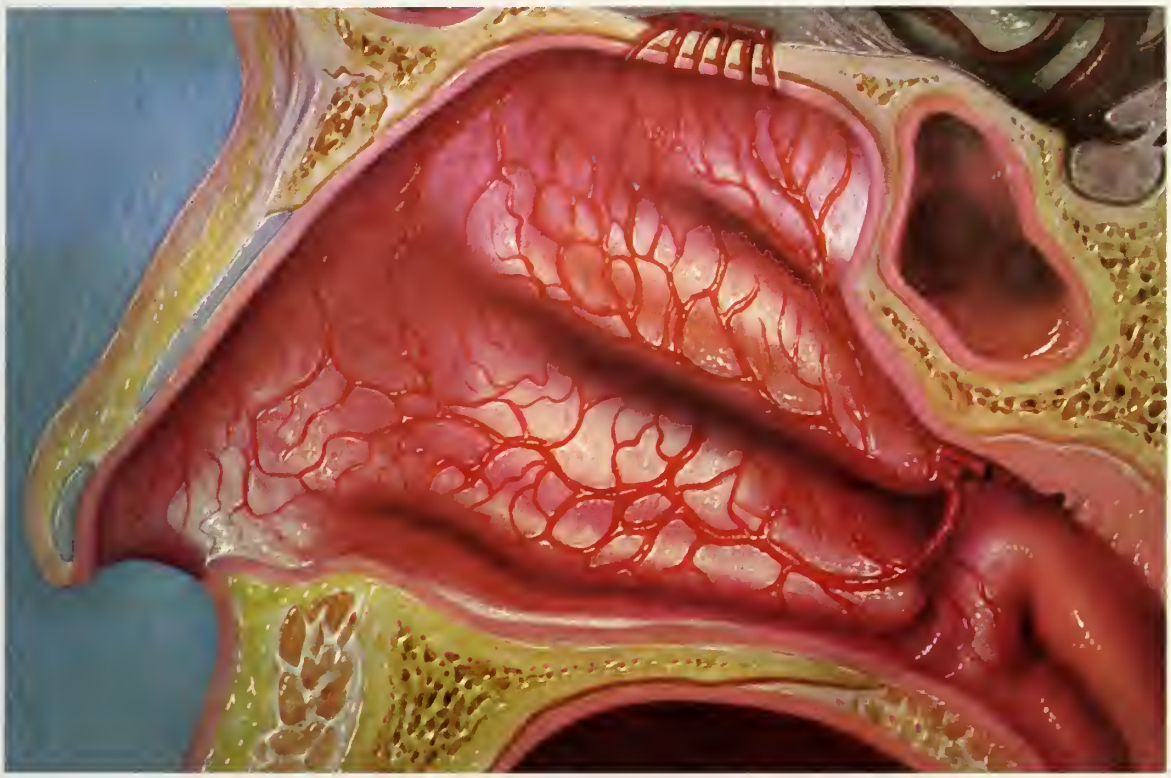
Planning for the new medical school should be started immediately and as noted previously, will require a high level of cooperative planning between the two universities. Although the coordi-

(Continued on Page 813)

winter 1968

DORSEY Season

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this issue: the cold in pregnancy...

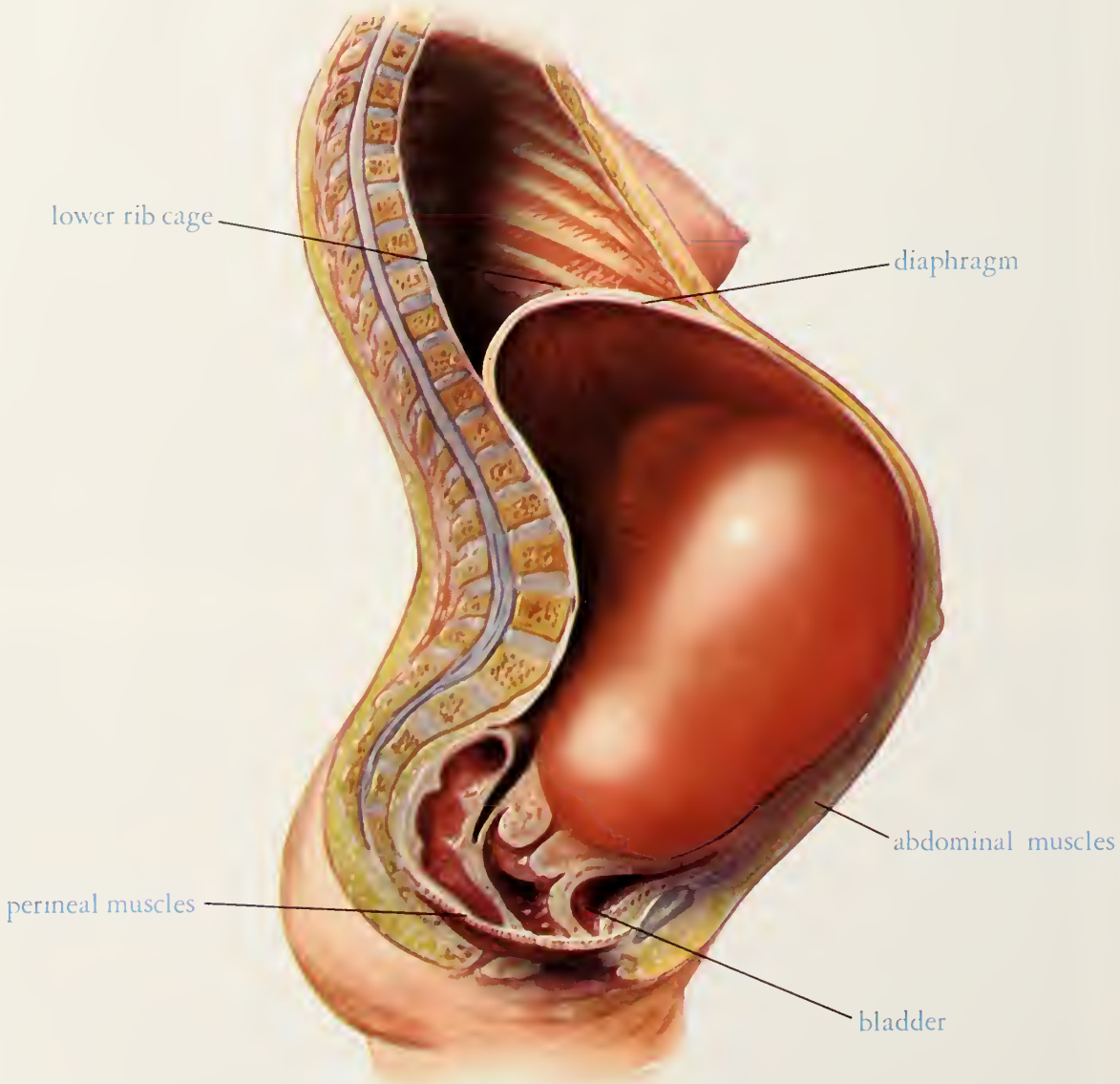
the cold in pregnancy

Frederick W. Goodrich, Jr., M.D.
Senior Obstetrician and Gynecologist, Lawrence and Memorial Hospital, New London, Connecticut

Since pregnancy and the common cold are both ubiquitous, it is not surprising that they often occur at the same time in the same patient. Incidence figures are hard to come by, but the chances are very good that any given pregnant woman will have a cold at some time during the nine months of her gestation. When she does, she will tell you that it is the worst cold she ever had. It seems to last longer and the symptoms are more distressing than they are in the non-pregnant.

For purposes of this discussion, the common cold is considered to be the well-known symptom complex which includes sore throat, stuffy nose, and a cough. Febrile states or extension of the disease process into the lower respiratory tree are not part of the common cold and will not be included in this discussion.

The clinical picture of a cold in pregnancy can be confused by a long-known physiological phenome-



non. Kiesselbach's area in the nose (on the anterior part of the nasal septum above the intermaxillary bone) becomes engorged, apparently due to hyperemia induced by the increased estrogen level which accompanies pregnancy. The amount of congestion can vary in degree from woman to woman. Some have very little congestion, others will have occasional nosebleeds from this area, still others will have symptomatic congestion to the degree that they will complain of having a "chronic" or constant cold.

Less well recognized is the occurrence of this type of hyperemia in any part of the nasopharyngeal mucosa, again in varying degree. Such swelling often produces a postnasal drip which, the patient will state, is present only when she is pregnant. Patients who do not have symptomatic congestion ordinarily, will find that when they do get a cold, the symptoms last much longer than those of a cold usually do. Occasionally, this hyperemia is responsible for closure of the medial end of the Eustachian tube; such patients will complain of "plugging" of the ears. Inspection of the ear drum will show a depression which confirms the presence of Eustachian closure rather than wax in the canal which is the patient's diagnosis. Symptoms related to this physiological congestion are more apt to occur in heavier smokers or those who have a history of allergic rhinitis, just as are the symptoms of the common cold. And when the cold does occur in pregnancy, the symptoms are worse because of the underlying congestion.

The pregnant woman with a cold is miserable for other reasons, dependent somewhat on her parity and the length of her gestation. As parity increases, so also does the relaxation of the abdominal and perineal musculature. The uterus, lying against a slack abdominal wall, and bearing down on relaxed perineal muscles, acts like a piston when the patient coughs, sneezes, or even blows her nose, pushing down on the bladder. Stress incontinence during colds is almost the rule.

As the length of gestation increases, so does the size of the uterus. As it grows, it pushes the abdominal contents above it and elevates the diaphragm. This results eventually in a lateral displacement of the lower rib cage, often to a point at which the patient will complain of soreness in this area. If such a

(Concluded on following page)

From a continuing study on nasal congestion...



timed to work while your patient does

A study begun in 1966 by the Department of Otolaryngology, Greater Baltimore Medical Center, has accumulated evidence that documents the effectiveness of Triaminic's timed-release action in the treatment of nasal congestion.

With its balanced formulation of an oral nasal decongestant and two antihistamines, Triaminic effected partial or complete relief in more than 82% of the 85 subjects treated. Clearing nasal obstruction. Reducing turbinate swelling. Making breathing easier.

It's a comforting thing to know that Triaminic really works.

Triaminic® *timed-release tablets*

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride	50mg.
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Pheniramine maleate	25mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

patient has a cold, the coughing and sneezing will exaggerate this soreness. The diaphragmatic restriction caused by the enlarging uterus also makes breathing more difficult, particularly when the patient lies down. A cold compounds this difficulty.

Treating a cold in pregnancy requires two additional considerations. The patient should be told that the symptoms may last longer lest she become discouraged, and she should be reassured that the treatment will not damage the fetus. Although there are still some women who seem blissfully ignorant regarding matters of health (and these need to be cautioned not to take medication recommended by friends), most of our maternity patients are aware of the thalidomide tragedy. These women need constant reassurance that the symptoms of a cold can be treated, and that the medication is safe. Fortunately, many of the drugs which are of benefit have been in use long enough and widely enough so that such a statement can be offered. Occasionally one encounters a patient who is so anxious to avoid medication that she is extremely reluctant to take anything at all. Since cold is self-limited, it seems reasonable enough to give such a patient the choice and not to force drugs on her if she is obviously afraid of taking them.

The most distressing symptom of the common cold is the nasal congestion. This can be mitigated by the use of a decongestant which will help reduce the postnasal drip and the coughing caused by it. The kind of a cough which is described as a "tickling" in the throat and which is apt to occur when the patient goes to bed is usually due to nasopharyngeal congestion rather than inflammation in the lower respiratory tract.

There are many cough mixtures available. Most contain an antihistamine, a decongestant, and a cough "suppressant." Should cough suppression be desirable, it is important to remember not to use both a decongestant tablet and such a cough mixture as the patient would be getting a double dose of the decongestant. With some patients, the placebo effect of a cough syrup may be important and a liquid preparation might be substituted for an oral tablet.

For a sore throat, candy drops or lozenges at frequent intervals are soothing. It is not only unnecessary but unwise to use antibiotic lozenges or drops. The use of antibiotics in an uncomplicated cold is contraindicated and should be scrupulously avoided.

In summary, a cold in pregnancy is more severe and longer lasting. The treatment of the symptoms with local and systemic decongestants will make the patient more comfortable.

Apparently the cold is so common in pregnancy that it has received very little attention in the literature. References are almost non-existent and the few which are available add little to the common knowledge, are out-dated, or are not helpful. Thus the usual bibliography is not appended.



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Triaminic® syrup

Each teaspoonful (5 ml.) contains:

Phenylpropanolamine hydrochloride	12.5 mg.
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For nasal congestion you can bring quick, lasting comfort to your little patients with Triaminic Syrup. You may occasionally encounter these side effects: drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: the possibility of drowsiness should be considered by patients engaged in mechanical operations requiring alertness. Use with caution in patients with hypertension, heart disease, diabetes, or thyrotoxicosis.

(Advertisement)

EXPANSION OF MEDICAL EDUCATION PROGRAMS

(Continued from Page 808)

nation of planning may be difficult to achieve, the recommended approach will assure the most rapid development of the state-wide system for medical education.

Assuming that previous recommendations are implemented, additional requirements will include:

* Additional faculty for basic science.
* Expansion of basic science facilities at the University of South Alabama.
* Additional clinical faculty and teaching facilities as the student body is expanded.

The University of South Alabama now has specific plans for developing advanced degree programs in the life sciences which are expected to be well established within ten years or less.

8. CLINICAL PROGRAM AT HUNTSVILLE

Following the establishment of the four-year medical school of the University of South Alabama in Mobile, a program for third- and fourth-year students should be developed in Huntsville to accommodate an equal number of students as the basic science program in Tuscaloosa. Assuming adequate hospital facilities are developed in Huntsville in the immediate future, requirements for development would be similar to those for developing the two-year program at Mobile, as described in Section 5. Conceivably, a third medical school might be established in Huntsville as the university develops its total program there.

9. PLANNING FOR MEDICAL EDUCATION

Previous sections have outlined the elements of a plan for development of a system of medical education which: (1) can be implemented as rapidly as feasible, (2) takes maximum advantage of the economies of expansion rather than building totally new programs and facilities, (3) provides for assurance of high standards, and (4) fosters improved distribution of health resources. Much detailed planning will be necessary to determine more specifically for each step:

* Program content and timing.
* The number of students.
* Details of organization.
* Faculty and other personnel requirements.
* Operating costs.
* Facilities requirements.

Exhibit VII depicts a summary of the proposed plan and shows possible timing and, in some cases, the number of students. It should be recognized that the timing and size of classes are illustrative only and more detailed planning is necessary to develop specific projections at each stage.

* * *

The State of Alabama faces an enormous challenge to meet its needs for medical manpower. Needs are so great that development should take place as rapidly as additional resources can be developed and qualified students can be recruited and trained. With a high degree of joint planning among state officials, the University of Alabama, the University of South Alabama, and other institutions, the challenge of medical manpower common to all, can be met successfully.

EXHIBIT VII

STATE OF ALABAMA

POSSIBLE SCHEDULING OF THE PLAN FOR A SYSTEM OF MEDICAL EDUCATION

Element	By 1969-1971				About 1972-1975				About 1975-1980			
	Birmingham	Huntsville	Mobile	Tuscaloosa	Birmingham	Huntsville	Mobile	Tuscaloosa	Birmingham	Huntsville	Mobile	Tuscaloosa
Undergraduate												
First Year	125		Early Planning	Planning and Development	125		Planning and Development	25-35	125	Consider	25-30	25-35
Second Year	100				125			25-35	125		25-30	25-35
Third Year	80		Planning and Development		100-125	Planning and Development	0-35		125	25-35	25-50	Consider
Fourth Year	80						0-35					
Graduate												
Internship	x	Planning and Development	Expand		x	x	x		x	x	x	Consider
Residency	x				x	x	x		x	x	x	
Postgraduate	x			Development	x		Planning	x	x	Consider	x	x
Continuing	x	Early Planning	Expand	Development	x	Development	x	x	x	x	x	x



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The National Advisory Commission on Health Manpower reported that the nation's health care system must be improved to assure that quality health care is available to all Americans at a reasonable cost.

The 15-member Commission, in its report to President Johnson, urged a substantial expansion in the capacity of existing medical schools and continued development of new schools. At the same time, the advisory group said that "although the need for more physicians is urgent, the costs and dangers of a crash effort to increase production appear to outweigh the benefits."

The Commission, headed by J. Irwin Miller, chairman of the Cummins Engine Co., Columbus, Ind., was set up in May, 1966, by President Johnson to recommend bold, imaginative ways to meet health manpower needs. Five physicians signed the report, including Dwight Wilbur, M. D., President-Elect of the American Medical Association.

The Commission members agreed that tackling the problem of manpower, alone, would not cure present ills.

". . . If additional personnel are employed in the present manner and within the present patterns and systems of care, they will not avert, or even perhaps alleviate, the crisis," the Commission said.

"Unless we improve the system through which health care is provided, care will continue to become less satisfactory, even though there are massive increases in costs and in numbers of health personnel."

The Commission recommendations were accompanied by an assertion that government alone is not big enough to solve the problems of health care for the American people.

The American Medical Association's House of Delegates at its recent meeting in Houston, Tex., approved a report of the Board of Trustees on the Commission's report. The Board stated:

"The 'Report of the National Advisory Commission on Health Manpower' reflects much of the serious attention given to the evolving needs of health care long recognized, studied and implemented by the American Medical Association and other professional groups in the health fields.

"The House of Delegates and the Board of Trustees of the AMA have not had time to study the Report carefully. . . . However, it appears to recognize the needs arising from the rapid growth of the public's desire for health care. This attitude is the result of increasing awareness of the great advances in medical science and techniques, and of the prolongation of life for millions into middle and advanced ages. . . .

"The Report will receive the intensive study of the various expert groups within AMA and reports on their recommendations will be issued as soon as they can be developed properly. There appear to be some areas in which modifications will be necessary to assure attaining the objectives sought for advancement of health care for all citizens."

The Commission's proposals included:

—Federal funds in support of capital or operating costs of education should be provided to a medical school in such a way that they create economic incentives for the school

to expand enrollment while improving its quality.

—The federal government should make available to any medical student loans to cover the full costs of tuition and living expenses during formal professional education. The student should be able to choose between repaying the loan from earnings over a period of years or giving two years of his time to approved national service apart from Selective Service obligations.

(Dr. Wilbur discussed from these two recommendations: "I believe the principle is not sound and that the recommendations are impractical, unnecessary, will not serve the purposes intended, and will be largely unacceptable to most students.")

—The federal government should give high priority to the support under university direction of experimental programs which train and utilize new categories of health professionals.

—At a minimum, foreign-trained physicians who will have responsibility for patient care should pass tests equivalent to those for graduates of U. S. medical schools.

—The Selective Service Act should be amended to provide for the automatic transfer of the records of every draft-eligible health professional, upon his graduation from professional school, from the local board of his original registration to the local board in whose jurisdiction he works and for subsequent transfer with each change in the location of his work.

—The Selective Service Act should be amended to provide equal draft-liability for U. S. and foreign medical graduates.

—Service with the U. S. Public Health Service should be phased out as a substitute for the military obligation of health professionals.

—The Department of Defense should be instructed to encourage the greater use of the Military Medicare Amendments of 1965 and should study the feasibility of utilizing voluntarily obtained health professionals in military facilities located in the United States.

—Nursing should be made a more attractive profession by such measures as appropriate utilization of nursing skills, increased levels of professional responsibilities, improved salaries, more flexible hours for married women, and better retirement provisions.

—Programs for health care of the disadvantaged should be given highest priority and made available wherever needed.

—Professional societies, universities, and state governments should undertake, with federal support, studies on the development of guidelines for state licensure codes for health personnel.

—Professional societies and state governments should explore the possibility of periodic relicensing of physicians and other health professionals.

—Professional societies, health insurance organizations, and government should extend the development and effective use of a variety of peer review procedures in maintaining high quality health and medical care.

* * *

President Johnson signed a $281 million mental retardation bill with a statement that the nation still is not doing enough to solve the problem.

He also signed a three-year, $589 million extension of federal aid for state public health programs.

It provides for federal licensing of clinical laboratories operating in interstate commerce unless they are run by pathologists, in which case the facilities would have to meet standards set by the American College of Pathologists or the American Hospital Association. Individual physicians operating labs for their own patients would not be affected by the new law.

Alabama Department of Public Health

Narcotic Addiction of Physicians

Charles H. Jones, M. D., Portland, Oregon

His urgent need for help should be recognized by the colleagues of the physician addict. Official action should be sought as soon as the problem is detected. Physician addicts show striking similarity in early life characteristics, psychopathologic patterns, age of onset of addiction, and exogenous factors leading to addiction. It is a manifestation of depression and, in keeping with depression, the suicide rate is high. Treatment is rewarding. Most physicians can be rehabilitated and returned to practice. Change of specialty has been shown to be a valuable factor in rehabilitation.

Sometimes it is worthwhile to consider how one becomes an expert or develops a special interest in a field of medicine, such as drug addiction of physicians. Personally, I have developed a special interest in this problem since masquerading as an expert two years ago as an invited speaker at a state medical association meeting where I read a second paper on a subject which I thought I knew something about. The program chairman needed a narcotic expert and did not seem to mind that I had direct clinical experience with about half a dozen physician addicts only and some administrative connection with perhaps two dozen others. So I was reduced to reviewing the literature, interrogating psychiatric colleagues and ruminating about various features of my few cases.

Reports Are Infrequent

As the literature is reviewed, one finds a scarcity of papers on a subject which really is of tremendous importance to medicine. Most studies tend to come from United States Public Health Service Hospitals, state disciplinary boards or prominent private mental hospitals. A 30-year period was required by Wall[1] to gather a series of 44 physician addicts studied at the Westchester division of the New York Hospital and Modlin and Montes[2] needed a 15-year period to assemble a series of 25 patients studied at the C. F. Menninger Memorial Hospital. These two papers are mentioned in that they pay particular attention to the personalities of these patients and are in substantial agreement as to their findings.

Perhaps the paucity of papers on the subject of narcotic addiction of physicians is due to our tendency to make a moral judgment of each case which comes to our attention rather than to consider it a medical problem. As a patient, a physician addict is apt to be regarded by his peers as a nest-fouling bird and is apt to be met with hostility, scorn and rejection. It is the purpose of this paper to present narcotic addiction of physicians as a clinically valid psychiatric entity, namely a depressive syndrome.

If narcotic addiction of physicians is regarded as a depressive illness, some under-

Dr. Jones is Psychiatrist-in-Chief, Henry Waldo Coe Foundation, Portland, Oregon.

Read at the Annual Meeting of the Oregon Academy of General Practice, Portland, Oregon, May 20, 1966.

Originally published in Northwest Medicine.

standing can be reached of its onset, clinical course and treatment. Regarding addiction as a depressive illness helps answer the question of why it first appears in the middle or late 30's after five to ten years of productive medical practice. What better way is there for us to gain insight than to regard this socially unacceptable, medically reprehensible condition as a form of social suicide? There is no more effective nor more convenient way for a physician to destroy himself. Ready accessibility of drugs has led to an incidence of narcotic addiction in physicians reported as varying from 30 to 100 times that of the general population. In short, it is an occupational hazard, which interestingly occurs at the same incidence from each of the United States, England, Germany, Holland and France. Fifteen per cent of known drug addicts in these countries are physicians, with another fifteen per cent members of paramedical occupations.

Psychopathology

Aside from depressive symptomatology and good results from depressive treatment regimens, such as electroshock therapy, a good case for a depressive etiology of narcotic addiction of physicians can be made by longitudinal studies of common personality traits and psychodynamic factors. These elements of depressive illness have been noted with great frequency in the life histories of these patients. In most reports they have not been studied in a way so as to be statistically valid. However, there are factors which seem to appear often enough that one is entitled to certain impressions.

The early development of individuals in this group shows a pattern of unduly long periods of illness and convalescence with the usual childhood diseases. In general, this phenomenon does not seem to be fostered by parents. In addition to the usual childhood diseases, there seems to be a high incidence of intestinal colic or feeding disturbances. Many give an early history of being enuretic.

From early childhood, physician addicts tend to avoid close attachments to either parents or siblings. This inability to relate to others or to show genuine friendship amounts to a clearly defined defect. The fathers of these physicians are usually described as stern and depriving, indifferent, rejecting and withdrawn, or inconsistent, volatile and emotionally unstable. Modlin and Montes state that in the study of their group of 25 physicians, over 50 per cent reported their fathers having a drinking problem and only three of the 25 thought their fathers liked them. None thought that he was a favorite son, and many claimed that a preference was expressed for a brother. Four had close bonds with their mothers, while 21 usually described them in critical or resentful terms. The attitude of physician addicts towards their mothers is usually very ambivalent, with a conflict between marked feelings of dependency and a resentment of maternal domination.

Physician addicts report an odd type of adolescence with a significant absence of the usual rebelliousness, idealism, and cynicism, which are customarily expressed by turbulent or erratic behavior. Compliance with demands of parents and other authority figures is the rule. In the field of academic achievement this group is generally above average for their classes, and this holds true for professional education as well. Sexual conflicts of adolescence are intense with masturbation accompanied by profound guilt feelings. Pursuit of heterosexual experiences is often inhibited and delayed.

In analyzing 44 physician addicts, Wall comments as follows: "The outstanding personality traits are a sensitive tenderminded-ness with a tendency towards hypochondriasis, to tire easy, and inability to stand life when the going was rough and hard. Twenty-eight were immature, felt inadequate and withdrawn, somewhat irresponsible and unreliable, lacking in staying power, qualities commonly met by the so-called psychopathic personality. Twelve were of the neurotic

(Continued on Page 820)


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Geigy

(Continued from Page 817)

type with a long history of generalized tension, visceral tension, headaches and insomnia, and periods of neurasthenia and depression. Four were definitely retiring, shut-in, and schizoid in make-up."

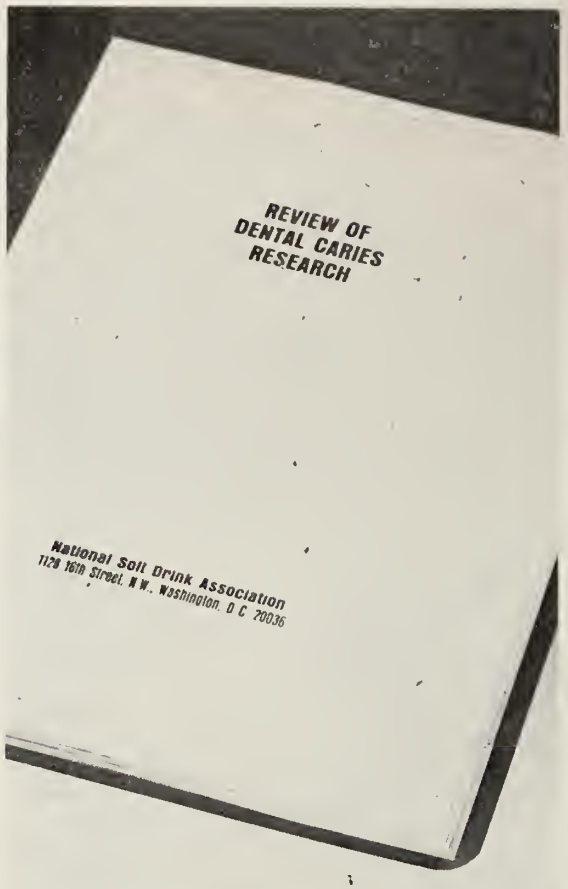
Bogus Socialization

In respect to socialization there seems to be a difference between addicts and alcoholics. Physician alcoholics seem to be driven towards a superficial or bogus type of socialization with an uncritical acceptance of strangers as friends. Physician addicts are just the opposite and show an increasing withdrawal from community and family affairs. In this there appears to be a direct connection to the independent, aloof attitude seen in these individuals in childhood.

An early tip-off to withdrawal is often seen as a hiding behind an apparent dedication to work. This might be acceptable to a non-physician, but upon close examination by other doctors this should, indeed, appear to be an untenable excuse for years of neglect of family or for failure to form warm, interpersonal relations. When this hiding behind a dedication to medicine is looked at clearly, it usually emerges as aimless activity in the guise of work, a disorganized business which accomplishes little, or a compulsive involvement with minutiae, which could be easily delegated. A similar trait mentioned occasionally is the following of a single-minded type of hobby, which by its nature excludes everyone else.

There is something about the personalities of physician addicts which does not allow them to stand prosperity. They show a definite ability to disclose inadequacies. They seem to have a drive to get associates, and particularly superiors to reject them and to oppose them. They do this by behavior which obviously produces distaste and hostility by those who might otherwise be inclined to be accepting. Medical staff duties tend to be

(Continued on Page 823)



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(Continued from Page 823)

erratic and unconventional. Elective procedures are scheduled late at night, and rounds are made at unorthodox hours. Hospital work is generally performed at times when authority figures are least likely to be encountered. Often this behavior in appropriateness extends to accident proneness. Something disagreeable or disastrous always seems to happen.

Sexual Adjustment

The sex lives of physician addicts are seldom satisfactory. Durable, incompatible marriages commonly prevail, with much discord, recrimination, and misunderstanding. There seems to be a stereotyped inability to establish satisfactory sex relationship on a continuing basis. Physician addicts seem to be dependently attached to their wives, constantly checking to see whether or not they are really loved, and in turn they are unable to show affection themselves, due to their unresolved ambivalent conflicts stemming from attitudes towards their mothers when they were children. Most physician addicts have serious sexual difficulties when it comes to performance, being either impotent or prone to premature ejaculations. Of course, in each instance these become progressively intensified by narcotic addiction.

Most physician addicts show a singular attitude towards children. They are reluctant to have them in the first place, and if they arrive, dissatisfactions are overtly expressed and the sharing of obligations of upbringing is disclaimed. So little interest is shown in children that often they are regarded as rivals for the affection of the addict's wife, and a struggle for this ensues.

As might be expected from physician addicts' predisposing personalities, they tend to choose their wives in a manner plainly indicating a search for a parental surrogate. Invariably, they establish a dependent relationship, demanding much emotional support from wives, in spite of the fact that very little is given in return. Often wives are regarded more as mothers, which may explain the prevalence of heterosexual incompatibility and the prevalence of promiscuity. The latter is a striking feature which bears emphasis. Generally sexually immature and inadequate with their wives, physician addicts are prone to frequent extramarital affairs, and in their conduct of these there is a certain administrative inadequacy, one might say almost an accident proneness to get caught and known.

Time Of Onset

In Wall's series the average age at the time of admission was 43; the average age of addiction was 36. For 25 physicians evaluated by Modlin and Montes, the age of the first use of narcotics was 38 and with the average of three years of onset to admission to the Menninger Hospital two-plus previous hospitalizations had occurred. In a survey of 68 male physician addicts discharged from the United States Public Health Service Hospital in Lexington, Kentucky, Putnam and Ellinwood[3] report the most common age of physician patient was between 41 and 50, the average age being 46 years and 6 months.

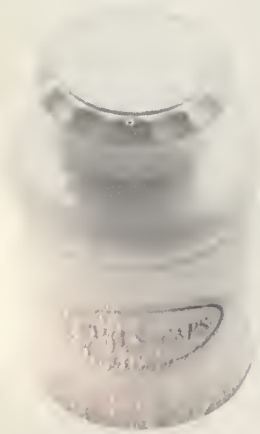
Wall reports the following reasons for the taking of narcotics initially by his group of 44: "The drug was taken first to relieve pain following fractures in four, hand infections in two, stomach ulcers in six, and headaches of the migraine type in ten instances. Twelve addicts took drugs when troubled over their relationship with their wives. Jealousy feelings of not being loved or understood were the complaints. In most instances, tension, fatigue and boredom were noted. Addiction followed within a few weeks or months after the beginning to take drugs."

Overwork, chronic fatigue and physical disease are the classic reasons described in the medical literature for the onset of addiction of physicians. These people seem to be unable to organize their time and medical af-

(Continued on Page 825)



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fairs. They complain of fatigability, which seems inappropriate for their age group. Perhaps when they complain of being tired they are actually saying that they are tired of being constantly called upon by their patients, that they are drained of energy and desire to do anything further. This is a common feeling known to all doctors in clinical practice at times, but in respect to this complaint, physician addicts seem to be unable to take customary measures for relief, such as vacations, an active family life, participation in community activities, hobbies, etc.

In summary, the dynamics of narcotic addiction of physicians seem to involve dependent individuals of superior academic and intellectual endowments who have shown a lifetime striving for high orders of attainment in the future, and in the quest for their personal great expectations they have been markedly supported by the applause brought about by their efforts. Finally, however, great expectations of the future become missed opportunities of today. Unattained professional accomplishments, financial problems, practice demands, and family complications bring these people into contact with the hurly-burly of life for the first time. It is the development of insight that life has not turned out the way expected that leads to depression and despair and ultimately to the socially suicidal solace of narcotic addiction.

Treatment

The treatment par excellence for the clinical symptomatology of depression is electroshock therapy. I consider myself professionally fortunate to have received psychiatric training in a state hospital at a time when the efficacy of electroshock was being determined by trial with a great variety of clinical conditions. The pendulum has so swung today in many state hospitals that electroshock therapy is seldom available, even for those patients with clear clinical need. Thus are trainees deprived of a chance to develop clinical judgment as to the indications and contraindications of a most valuable therapeutic method.

When should electroshock therapy be given to a physician addict? Although many come to the hospital in poor physical condition, and one aspect of rehabilitation is to improve the patient's physical well-being by medical measures, there is no good reason to delay electroshock therapy one day beyond the time that medical clearance for the treatment is given. Not only can electroshock therapy be given during withdrawal from narcotics, but it is a most effective treatment of withdrawal symptoms. An attractive explanation for this is that withdrawal symptoms are diencephalic and autonomic disorders, and electroshock has a neurophysiologically desynchronizing effect on the cerebral cortex and diencephalon.

There is a dearth of detailed case reports of psychotherapeutic progress with physician addicts in respect to various schools of psychotherapy. More important are social-psychological factors that apply to the proposition of being a physician. As soon as withdrawal has occurred, depression has been treated, and physical well-being improved by medical measures, the impact of the bind in which the physician addict finds himself is brought home full force. Above all, he finds that he does not want to give up the identity of doctor, which has been his shield and protection for so many years and which he worked so hard to obtain. Being a doctor is a very personal thing involving much more than engaging in the business of medicine. It is not only a way of life, but it is life itself. Thus, the practice of medicine is perhaps the major source of self-esteem remaining, and it is understandable that the physician addict does not want to give it up. When this is taken away from him by a revocation of his license or by imprisonment, he has received the equivalent of a death sentence.

Need For Help

In spite of physician addicts' attitudes towards the practice of medicine, very few will

break away from narcotics on their own. They have an inherent capacity for rationalization, simulation, vacillation, subterfuge and prevarication, and with these characteristics they are no different from the general addict population. Thus, it is at this point that state boards of medical examiners and state disciplinary boards enter the picture. The responsibilities of these boards are dual; first, to protect the public; second, to rehabilitate the physician and restore him as an active, participating member of his profession.

A survey[4] to which 48 states responded shows that 44 have provisions for placing an addicted physician on probation in order to carry out the latter responsibility. Boards are authorized to suspend or revoke licenses, to stay these actions and to place a doctor on probation for a specified length of time during which he may continue to practice medicine, but with the provision that his narcotics stamp be surrendered. It is disstressing, however, to note in the same report that while 18 states require psychiatric treatment, one state was noncommittal, and 29 states require no treatment whatsoever. Two states requiring treatment specify that physician addicts must enter United States Public Health Service Hospital at Lexington, Kentucky.

Most treatment-oriented examining or disciplinary boards approach the rehabilitation process with a clear understanding that they are undertaking a long-term supervisory responsibility of major psychological complexity. Psychiatric treatment is impossible without the benevolent yet coercive power of state boards composed of a physician's peers. As soon as an understanding has been reached with these authorities, the first requirement for successful treatment of physician addicts is hospitalization. Only when withdrawal from narcotics has been completed, depression treated and concomitant medical conditions cared for can realistic rehabilitation begin.

Long-term supportive psychotherapy is advised, but this alone is a waste of time. More important is a co-ordinated, planned effort by medical authorities, the physician's family, immediate colleagues, and a psychiatrist of his choice. Upon hospitalization is it necessary that effective work be done with the patient's wife at once. Not only is she a valuable source of historical material, but her attitude toward her husband and her capacity for understanding his condition need to be appraised early. It is necessary for her to understand that narcotic addiction is a manifestation of a depressive illness, and even though she has experienced many years of marital difficulty, personal abuse, and impaired social position, she should defer a decision about divorce or separation until her husband is no longer depressed. Usually, there is a very small percentage of physician addicts' wives who seriously consider abandoning their husbands; most stick with a surprising tenacity.

When the personalities of the wives of physician addicts are studied,[5] it seems that many have a need for keeping their husbands in a dependent condition and often show very subtle ways of continuing psychological stresses that are relieved by drug taking.

Oregon Statistics

Physicians of Oregon are indeed fortunate in having a Board of Medical Examiners that supervises discipline in a responsible, yet rehabilitative manner. I am in debt to the Board and its personnel for their efforts in making categorical statistics available without compromising the identities of physicians under their jurisdiction.

In statistics made available by the Board covering disciplinary problems of narcotic addiction from July 1, 1949, to June 30, 1965, 31 physicians and osteopaths were involved as compared to 36 with alcoholism. Thus these two violations constitute the main sources of disciplinary problems.

As in the case in most reports covering approximately the same period, meperidine (Demerol) by far is the drug most frequently used. As the major drug it was listed in 20

cases, compared to morphine in five, dihydromorphinone (Dilaudid) in three, and Pantopon, Percodan, and methadone (Dolophine) in one each. In eight instances a variety of narcotics were taken.

Of the physician addicts, 17 were general practitioners, and specialities were represented as follows: eight internists, three pediatricians, two surgeons, one anesthesiologist, and one obstetrician. Age of onset of addiction averages 37.8 years.

Action taken by the Board in the 31 cases has been revocation of 14 licenses and of these the revocation has been stayed in seven cases and probation substituted; 12 licenses have been suspended with stays and probation in ten cases; no action was taken once; one case was tabled; and one license was surrendered without further action.

There have been two suicides, before the board could act, while cases were under review. The fact that suicide is universally the most serious complication of narcotic addiction of physicians attests to its depressive psychopathology and the six suicides occurring in this Oregon series is about on a par with other reports.

There were four deaths, in the group of 31, from causes other than suicide, so that at the present time six cases have been closed as being rehabilitated and thirteen are continuing on probation with the Board help.

Benefit Of Role Change

Recognizing that narcotic addiction of physicians is a manifestation of a psychiatric illness, the Board usually appoints a panel of three psychiatrists to assist in evaluation of the problem initially and to aid in supervision of rehabilitative progress. Of sixteen living physicians who have been rehabilitated, or who are currently progressing well on probation, it is interesting to note that medical roles have been changed in six instances with three general practitioners becoming two psychiatrists and a pathologist; a surgeon and a pediatrician becoming general practitioners; and an internist changing to physical medicine.

From experience with several cases of my own I can testify to the effectiveness of role changing. Not only does the physician remove himself from the pressures of active practice, but in taking a residency or other training program he finds himself in a familiar situation where he has succeeded in the past. He again becomes a student striving for a future goal and this helps him repair his shattered medical charisma.

It is hoped that the presentation of these statistics from the State of Oregon will support the notion that narcotic addiction of physicians is definitely a psychiatric illness. Prognosis is very good when the illness is brought under control by treatment. Particularly in the case of narcotic addiction, physicians are victims of the V.I.P. syndrome; no one seems to want to step on their tender sensitivities. However, due to the high rate of suicide inherent in these depressions it is incumbent upon each physician to intercede in the behalf of a colleague when this illness occurs. Please, if the depressive symptomatology of addiction comes to your attention in a colleague, refer his case to the State Board of Medical Examiners so that responsible rehabilitation may be undertaken.

10008 S. E. Stark St. (97216)

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BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

September 1967

Live Births / Deaths / Causes of Death	Number Registered During September 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	6,001	3,894	2,107	20.5	20.7	22.5
Deaths	2,390	1,625	765	8.2	8.4	8.5
Fetal Deaths	121	66	55	19.8	21.9	19.8
Infant Deaths—						
under one month	80	50	30	13.3	17.2	17.5
under one year	124	73	51	20.7	23.4	22.5
Maternal Deaths	4	1	3	6.5	4.9	6.1
Causes of Death						
Tuberculosis, 001-019	18	11	7	6.1	5.5	7.0
Syphilis, 020-029	5	4	1	1.7	2.1	1.7
Dysentery, 045-048	1		1	0.3		0.3
Diphtheria, 055						0.3
Whooping cough, 056						
Meningococcal infections, 057					0.3	
Poliomyelitis, 080, 081						
Measles, 085						
Malignant neoplasms, 140-205	359	252	107	122.6	120.2	125.8
Diabetes mellitus, 260	38	27	11	13.0	17.6	9.1
Pellagra, 281						
Vascular lesions of central nervous system, 330-334	342	220	122	116.8	117.5	110.5
Rheumatic fever, 400-402					0.3	
Diseases of the heart, 410-443	790	579	211	269.8	294.4	287.0
Hypertension with heart disease, 440-443	90	39	51	30.7	41.8	33.6
Diseases of the arteries, 450-456	63	45	18	21.5	14.9	19.6
Influenza, 480-483	1		1	0.3	0.3	0.7
Pneumonia, all forms, 490-493	41	28	13	14.0	19.7	15.0
Bronchitis, 500-502	7	7		2.4	1.4	1.7
Appendicitis, 550-553	2		2	0.7	2.4	0.3
Intestinal obstruction and hernia, 560, 561, 570	11	7	4	3.8	4.1	4.9
Gastro-enteritis and colitis, under 2, 571.0, 764	4	1	3	1.4	2.4	1.7
Cirrhosis of liver, 581	21	16	5	7.2	4.5	6.6
Diseases of pregnancy and childbirth, 640-689	4	1	3	6.5	4.9	6.1
Congenital malformations, 750-759	31	24	7	5.2	3.0	4.5
Immaturity at birth, 774-776	22	10	12	3.7	5.5	5.0
Accidents, total 800-962	185	133	52	63.5	60.8	64.7
Motor vehicle accidents, 810-835, 960	100	73	27	32.8	34.9	37.1
All other defined causes	324	210	114	110.3	117.1	129.3
Ill-defined and unknown causes, 780-793, 795	121	50	71	41.3	32.8	43.7

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1967	Oct.	Nov.	*E. E. Nov.
Tuberculosis	106	111	98
Syphilis	101	73	117
Gonorrhea	424	382	275
Chancroid	2	0	2
Typhoid fever	2	0	1
Undulant fever	0	0	0
Amebic dysentery	0	0	3
Scarlet fever & strep. throat	520	613	94
Diphtheria	5	4	5
Whooping cough	6	66	7
Meningitis	7	8	6
Tularemia	0	1	0
Tetanus	1	0	1
Poliomyelitis	0	0	2
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	7	18	41
Chickenpox	5	20	15
Mumps	12	77	32
Infectious hepatitis	24	16	36
Typhus fever	0	0	0
Malaria	0	0	0
Cancer	1,192	677	493
Pellagra	0	0	0
Rheumatic fever	8	8	15
Rheumatic heart	12	23	25
Influenza	40	84	83
Pneumonia	199	282	197
Rabies—Human cases	0	0	0
Pos. animal heads	4	3	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

Avoid Stings by Rules

Persons hypersensitive to bees, wasps, hornets or yellowjackets (the Hymenoptera) can avoid stings by observing a few simple rules: (1) Avoid areas of heavy concentration of these insects. (2) Do not wear hair tonic, after-shave lotion, hair spray or perfume—scented preparations attract insects. (3) Wear white clothing; Hymenoptera are attracted by brown, black, or dark red clothing or floral prints. (4) Do not go barefoot or wear sandals when outdoors. (5) Keep an insecticide aerosol "bomb" spray available nearby when outside or driving the car. These and other rules are listed in detail in a short pamphlet published by the Insect Committee of the American Academy of Allergy, 756 Milwaukee St., Milwaukee, Wisc. Copies are available on request.—*J. Arkansas Med. Soc.*, April, pp. 428-430.



Health Care At The Crossroads

Joseph F. Volker, D. D. S.

Ladies and Gentlemen: It is a great privilege to join you on the occasion of your biennial conference. The Southern Company has been a potent and constructive force in the development of the South and an inspiration to those of us who have the responsibility for leadership in other aspects of the area's economy. I must apologize for the title of my presentation, "Health Care at the Crossroads." Although factual, it is devoid of imagination and humor, two characteristics that are essential for survival in our complex society.

Since my contact with your world is limited, I played it safe and made available to the program committee a conventional description of my address. If we were on more intimate terms, I would have dared to submit a more entertaining title, ergo, "Will You Walk a Little Faster" or "So Far to Go and So Little Time." I have utilized both of these in recent months. The latter is particularly appropriate because it is descriptive of the urgency of many of the great issues of our time and, in addition, is the punch line of one of my favorite stories.

Sir Winston Churchill, a man who appreciated the full life, ranks high on my hero list. Adventure and action, whenever possible, were shared with convivial companions. Brandy and cigars were his trademark, much to the discomfort of the British temperance groups. By inheritance, Sir Winston maintained a tenuous tie with some of the latter organizations and on one occasion agreed with reluctance to participate as a speaker at their annual meeting. The event was held in a large hall with a high vaulted ceiling. The president in introducing Sir Winston paid tribute to his many contributions to the Empire but alluded with regret to his reputation for drinking. He stated that according to some estimates, Sir Winston during his lifetime had consumed sufficient brandy to cover the floor of the banquet room to a depth of several feet. When Sir Winston arose to respond, he paused for a few moments, looked thoughtfully up at the ceiling, and said longingly, "Ah, so far to go and so little time!" I have similar sentiments when I reflect on the current crisis in health care.

For more than a year I have been a member of the President's Health Manpower Com-

Dr. Volker is Vice President for Birmingham Affairs, University of Alabama in Birmingham.

Presented at the Biennial Conference, The Southern Company, Point Clear, Alabama, October 5, 1967.

mission. This assignment has given me a unique opportunity to appreciate the complexity of the problem and understand the steps that must be taken to correct our current deficiencies. To begin with, I would like to summarize briefly the challenges that face our citizens. At this moment, medical care costs are increasing at a rate that is twice that of over-all price levels. Experts predict that by 1975 the health industry will become the nation's largest employer. The annual level of the national health bill approximates $50,000,000,000, but the public is discontented with the unavailability of professional health services. All of this comes when there are greater numbers of health workers and greater health facilities than at any period in our history. Against this background we are placing into operation Medicare and Medicaid, the most significant pieces of health legislation in American history.

Of even greater significance is the changing attitude of the populace toward health care. Until recently such services were considered a privilege; now they are in the category of a right. It is not my intention to debate the pros and cons of these actions or attitudes but rather to place them in their historical perspective and present position.

At this time the primary responsibility for the delivery of health care rests with two great non-profit institutions, university medical schools and hospitals. The former have the responsibility for supplying key manpower, developing new technologies, and furnishing consultative services and the latter for furnishing the management skills and the facilities. Each has an illustrious but largely independent history. Only within recent years have they developed significant programs of co-operation, and this has occurred principally within medical centers, a phenomenon of our time.

The University of Alabama in Birmingham is a classic example of the interrelationship of these two key components of the health industry. It also serves to illustrate the unusual growth of such facilities. Twenty years ago all of our activities were confined to one block of land close to the center of the city. Today we have expanded to a 15 block campus whose remaining islands of grass will disappear within the next 18 months as construction contracts are let for $35,000,000 of instructional, research, and service facilities. At this moment we are well advanced with plans that will add 45 blocks to the complex.

Development of the new property has been given careful consideration. Approximately one-third is reserved for affiliated hospitals that wish to participate in our teaching programs and avail themselves of our substantial resources, i.e., Library, Rehabilitation Center, Computer Laboratory, etc. Another third has been set aside for sophisticated treatment facilities that will serve the region, i.e., Heart, Stroke and Cancer Center, a Shrine Burn Center, etc. The remaining third will be devoted to educational facilities. These will include expansion of the undergraduate, internship and residency training programs in medicine and dentistry, undergraduate and graduate education in the basic medical sciences, nursing, and that allied health professions (physical therapy, occupational therapy, medical technology, radiological technology, hospital administration, etc.).

In addition, there will be a broad spectrum of collegiate programs that are vital to the growth of the health sciences. Among the latter are: engineering which contributes so much to the development of artificial organs, monitoring systems and the like; mathematics which is basic to the almost unlimited computer needs of the medical sciences; psychology, sociology, and anthropology that undergird programs in mental health, mental retardation, and social work; and education which is indispensable for the training of teachers in vocational rehabilitation and meeting the needs of children with special physical and neurological problems—reading disorders, sight impairment, speech and hearing defects, etc.

The Campus Plan, which has received ap-

proval by University and government agencies, projects a city within a city with a peak daily population of 45,000. This is composed of 16,000 faculty and students, 22,000 employees, 5,000 patients, and 2,000 visitors. Seventeen thousand parking places are programmed, and construction costs are estimated at $400,000,000.

Although it is difficult to visualize programs of this magnitude, there is every reason to believe similar developments will take place in almost every section of the country. It should be appreciated that our estimates have been made on the basis of substantial experience, the consulting services of nationally respected architectural firms, and the judgment of our full time planning staff who have authored three volumes on the subject. The validity of their projections is attested by the accuracy of predictions made more than ten years ago.

Those of us who are closely associated with the operation of medical centers are greatly concerned with the rising cost of hospital care and the chronic shortage of trained personnel in all categories. Current trends indicate that hospital costs per patient day will increase by approximately nine per cent per year between 1965 and 1975, reaching $100 per day by 1975. If cost saving innovations, introduction of modern management techniques, and technological changes could reduce the annual rate of increase by only two per cent, it would produce an annual saving of several billion dollars.

It is obvious that the physician occupies the key position in the delivery of health care. Whereas the growth in the supply of physicians has generally kept pace with the population, it has not kept pace with the demand for his services. The latter has removed from the practitioner pool those needed as teachers, investigators, and administrators. Government has been a big consumer. The armed services, via the draft, have siphoned off substantial numbers, and the requirements of other federal agencies, i.e., the Peace Corps, Food and Drug Administration, the Indian Service, and the Federal Prison System, have contributed to the private physician deficit.

Trends in medical education have further aggravated the deficiency. Several decades ago the career objective of most medical students was private practice which required only a year's internship after graduation. Today's doctor has completed only half of his education when he receives his "sheepskin." The goal of most current students is specialization, which demands three to seven additional years of formal education and delays their entry into the private practice pool. The rapid increase in knowledge makes it mandatory that both the general practitioner and the specialist participate in numerous refresher courses. As a consequence, at any given time another significant segment of practitioners is unavailable for patient care.

Although American medical schools have shown great ingenuity in increasing the size of their matriculating classes and many new schools have been created, their combined efforts in manpower production have not met the needs of the present system. To ease the deficit, importation of graduates of foreign medical schools has been accelerated. Each year almost 7,000 graduates of foreign medical schools enter the United States. Many elect to stay at the conclusion of their internships and residencies as attested by the 1,400 foreign medical graduates who were licensed to practice last year. This is the equivalent of the physician production of 14 average size American medical schools. The majority of these individuals come from the so-called underdeveloped countries and are greatly needed in their native lands. It is sad but true that at this moment the richest nation in the world is not self-sufficient in the education of doctors. It is not a question of having insufficient numbers of American applicants but rather one of insufficient institutional physical and fiscal resources to expand

(Continued on Page 834)



when he just can't sleep

Tuinal®

One-Half Sodium Amobarbital and
One-Half Sodium Secobarbital
supplied in ¾, 1½, and 3-grain Pulvules®



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal is indicated for prompt and moderately long-acting hypnosis. It is not suitable for continuous daytime sedation.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.



Dosage: 50-200 mg. (¾-3 grains) at bedtime.

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Lilly

(Continued from Page 831)

present programs and create new ones to accommodate those qualified for matriculation.

Those admitted have a difficult time. A substantial segment of the population is critical of the high income of physicians and this attitude has limited the financial assistance available to medical students during their undergraduate and residency training days. Few people appreciate the relatively short period doctors are able to earn a high income and the extent of their indebtedness when they enter practice. Twelve years of education beyond high school and the inevitable burdens of marriage and a family at a minimal subsistence level are a discouraging prospect to any but those who are dedicated or wealthy. In contrast, students who elect careers in the physical sciences receive much more favorable treatment. Very often undergraduate and graduate fellowships are readily available to them and their entire graduate and postdoctoral study is liberally financed by the government. Well-paying jobs await at the end of the rainbow. The solution is simple, equalization of doctoral and postdoctoral educational support in the health and physical sciences.

Even if we produce sufficient health manpower, the unreasonable increase in health services costs will continue unless we learn to use it more effectively. The present system is granted to be inefficient. In many instances highly trained persons are used for tasks that could be carried out by others. Careful studies are needed to determine what procedures require professional judgment and continuous attention and those that can be delegated to persons with limited but specific technical training. Each aspect of medical practice must be scrutinized for waste. The findings from such studies will permit intelligent modification of existing educational programs and the creation of new ones.

Lest all this seem theoretical, let me share with you a personal experience. As you perhaps know, my background includes a substantial exposure to dentistry, a profession which is responsible for a significant share of the nation's health bill. Many years ago I suggested that within dental practice, diagnosis and treatment planning, prescription of drugs, and all surgical procedures, i.e., the extraction of teeth, surgery of the gums, excision of tumors, reduction of fractures, and the preparation of teeth for fillings and crowns, were professional in nature. It should be noted that the latter procedures are irreparable. Once a mistake has been made, correction poses a major and often impossible problem.

Since a good portion of the dentist's time is consumed with the insertion and carving of amalgam and silicate restorations, I proposed that high school graduates with reasonable intelligence, good personalities, and acceptable digital dexterity be given intensive instruction in how to put on rubber dams, place and adapt matrix bands, and mix, insert, carve and polish amalgam and silicate restorations. Although these suggestions met the usual resistance and their implementation was delayed, they have been carefully investigated and shown to be feasible. The findings are published in the current issue of the *Journal of the American Dental Association* and in general have been favorably received. If adopted widely, they could reduce our estimates of future dental manpower, extend our capacity to meet dental health needs, and reduce the cost of dental services. A similar approach must be applied to other medical specialties as a sound basis for licensure revision.

The manpower deficiency of the health industry is compounded by an equally serious management deficiency. There is an obvious lack of middle management. Only a limited number of physicians are willing to concern themselves with the problem. As a group they are highly intelligent and superbly trained for their respective tasks. Most of them graduate from college with honors, have rigorous professional school training and

equally arduous specialty residency experience. They have a well developed capacity for decision and are adequately equipped to serve as captains of the patient care team. Unfortunately, there is a wide gap in the "pecking" order between them and the next professional group—nurses, medical technologists, etc. Intellectually, it amounts to eight years of formal training and is further aggravated by initial differences in native ability and in the caliber as well as the quantity of their professional education.

Neither the physicians nor the allied health workers have "in depth" preparation in administration. Most present needs in this area are met by employing hospital administrators. The confusion in this field is best illustrated by noting that approved graduate programs in hospital administration are found in such diverse areas as schools of business, graduate schools, and schools of public health. Candidates come from varied academic backgrounds but few have had distinguished undergraduate records.

The ultimate responsibility for the management of hospitals rests with boards of trustees. In most instances they are prominent and successful businessmen and public-spirited citizens. Only in rare instances do physicians serve in this capacity. Most trustees have not had a background that permits them to function with maximum effectiveness, and there are few mechanisms for overcoming this deficit.

The directions in which we must move are obvious. Modern medicine is big business and administrative training should be included in the formal education of physicians. Means must be developed to recruit and train talented non-physicians as health managers. Carefully planned and continuous institutes should be established for the neverending education of hospital trustees.

A key to improved and economical patient care is automation. There is a critical need to adapt, wherever possible, new technologies to the health industry. This is more easily said than done. The monitoring of alterations in physiological and biochemical processes in man and their response to medical and surgical procedures is basic for effective diagnoses and treatment. With few exceptions these processes are complex in nature and difficult to record and analyze. Serious efforts are being made to computerize interpretation of electrocardiograms, electroencephalograms, the reading of X-rays, and the recording of the results of laboratory tests. I believe that eventually we will succeed in adapting these and many other procedures to on-line computers.

At this time our Medical Center budgets exceed half a million dollars a year for computer operations. This month we will expand research activities in this area, thanks to a federal grant that is funded at a level of more than a million dollars annually. Within the next several months construction will begin on a computer research facility specifically designed to meet the needs of our investigators. The first unit will cost approximately a million dollars. Impressive as these efforts are, they may not achieve the desired goal. If we are to reduce health costs by adapting advanced technology to patient care, we must be willing to pay the substantial costs that are associated with basic and applied research.

So far I have attempted to summarize the current situation and comment briefly on manpower, management, and technology. At least one other element, finance, deserves consideration even in this limited presentation. Until recently there were essentially two kinds of patients, the fortunate ones who could pay the physician and the hospitals for services and the indigent who were the recipients of charitable services by the physician in institutions supported by the community. With the development of voluntary insurance and government programs such as Medicare and Medicaid, this distinction is disappearing at an accelerated rate. The

legacy of the past must not and should not dictate the future.

The health industry is a non-profit business and reimbursement is on a cost plus basis. My business friends assure me that such arrangements condone and encourage inefficiency. A system of differential payments must be developed that will permit institutions rendering the most effective services to modernize and expand their physical plants and pay their employees premium wages. There are several existing models that should be replicated.

Of particular interest to your group is the Kaiser Foundation Health Plan. This provides comprehensive health care on a prepaid basis to more than a million and a half people residing on the West Coast. During the period 1960-1965, the rise in hospital expenses for Kaiser policyholders was 15 per cent as contrasted with 50 per cent for the United States as a whole. At the same time, the hospital utilization rate by Kaiser subscribers declined by 12 per cent when rates throughout the United States were increasing by nine per cent. Time does not permit a detailed analysis of the factors that permit these differences but authorities have reviewed the phenomenon and have concluded that these savings result primarily from effective control over the medical care that is provided and the manner in which it is made available. It should be emphasized that the average Kaiser member obtains **high quality medical care** for approximately 25 per cent less than he would have to pay if he were outside the plan. Since one of the industrial giants played a major part in developing the program, it substantiates the belief that sound management and financing techniques can do much to alleviate our present situation.

As further evidence of this conclusion, I would point out that contrary to public opinion drug prices have not contributed significantly to rising medical costs. During the period 1950-1965, the drug component of the consumer price index increased 13.3 per cent, or somewhat less than one per cent per year. Since this aspect of the health industry is a responsibility of the business community, it is to be commended for its achievement.

In summary, I would reiterate my pleasure in being invited to speak and to share with you thoughts on the magnitude and nature of the health crisis that affects us all. I have attempted to identify within the limits of my knowledge some of the etiological factors that contribute to our present disability. Hopefully, I have made the proper diagnosis and prescribed effective curative measures. Like many of today's diseases, our current illness has multifactorial causes and requires treatment by an interdisciplinary team. A manpower deficit, inappropriate use of skills, ineffective management, and inadequate financing have produced a moribund state. But "where there is life there is hope," especially as the resources of education and industry are applied in full measure to our current dilemma. I am especially encouraged by the increasing dialogue between the university and business in this section of the United States. Our objectives are compatible; our resources are complementary; our capacities are infinite.

In closing I would like to share with you a story. In a way it describes my reaction to your very kind invitation to participate in this meeting. Two Irishmen had had a long and enjoyable evening in the village pub. As they supported each other on the journey homeward, they crossed a bridge that spanned a deep but quiet stream. It was a lovely night and a full moon lighted their way. As they paused to rest on the bridge, the more relaxed of the pair peered into the water and asked his companion, "What's that down there?" The friend, who had retained a greater portion of his consciousness, answered, "Why, that's the moon!" To this his companion replied, "If that's the moon, how the hell did I get up here!"

Orientation Guidelines

Ordinance XXXIV—Orientation of New Members

Be it ordained by The Medical Association of the State of Alabama:

Section 1. An orientation program shall be established for new members elected to membership on and after January 1, 1960. This will be presented at the annual meeting of The Medical Association of the State of Alabama held in April each year.

Section 2. On and after January 1, 1960, those physicians elected to membership in a county medical society shall have provisional status as members of the county medical society and The Medical Association of the State of Alabama until they have participated in the orientation program provided by the Association. If a provisional member fails to attend this program within a two year period, unless he has been excused for a just cause by the county board of censors and the State Board of Censors, he will lose his status as a provisional member in his county medical society and The Medical Association of the State of Alabama, and must be re-elected upon reapplication to the county medical society. The two year period shall begin with the date of acceptance as a provisional member.

Section 3. When a provisional member has attended an orientation program, the county medical society shall be notified by the secretary of the Association.

Section 4. The dues and privileges of members holding a provisional status shall be identical to the dues and privileges of the regular members.

Section 5. Each county medical society shall be instructed to report to the state headquarters promptly when an individual becomes a member of the county medical society and as soon as this is reported to the Association, he will be considered a provisional member of the Association.

Section 6. Valid excuses may be: serious illness of the provisional member; serious illness in the immediate family; a death in the immediate family; or events of similar gravity.

Section 7. A conflict in dates with another meeting will not be considered as a valid excuse since the member's first obligation is to his county society and State Association.

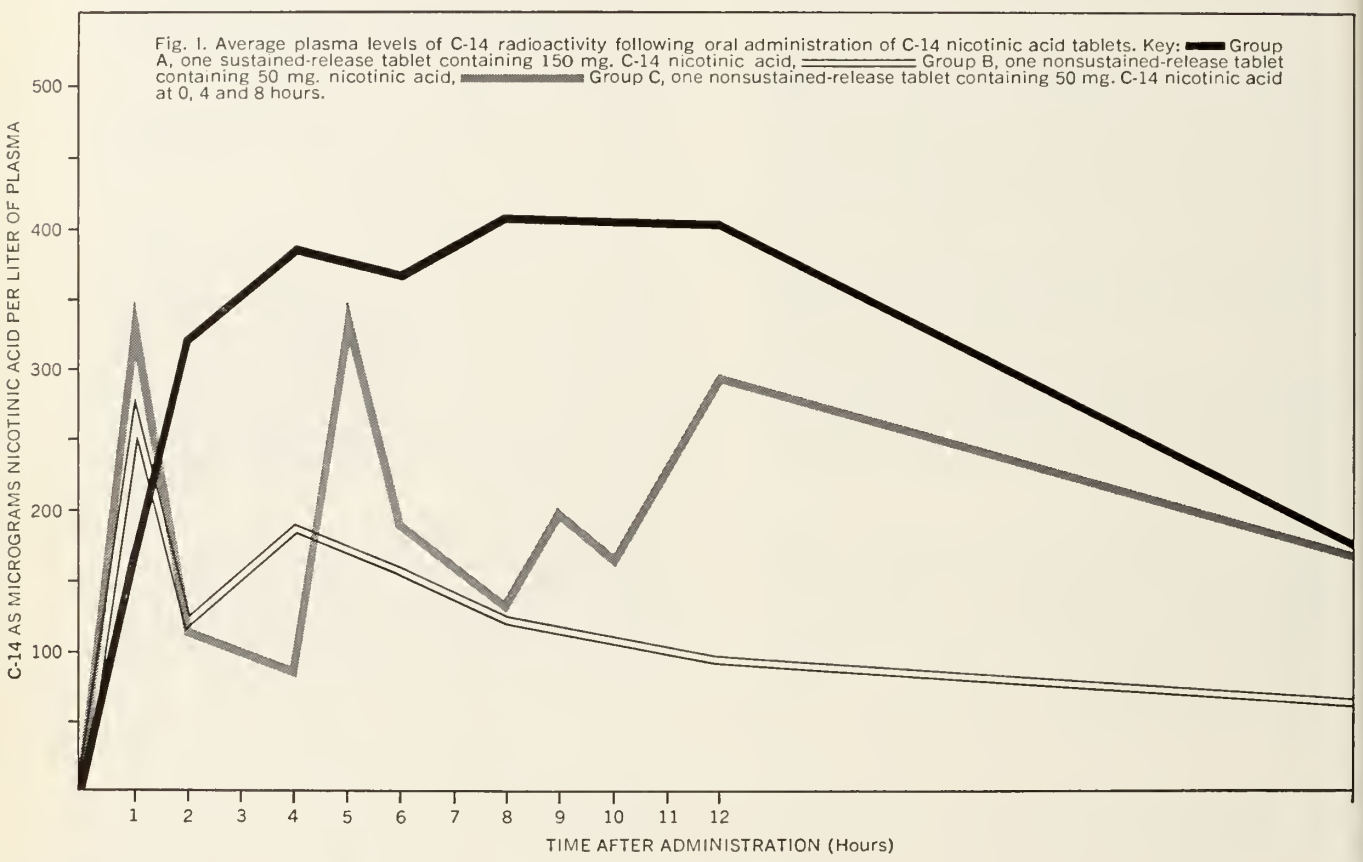
Section 8. Whenever a new member is properly excused from attending an orientation program during the first year of membership, it means that there remains only an additional year to fully qualify. Some have misunderstood this in that they believed they had an additional two years from the date of the excuse. Whenever they are properly excused, they should be notified in writing of this provision by the Secretary-Treasurer of the State Association.

Section 9. These guidelines, when approved, shall be sent to each county medical society, the Medical College of Alabama, and shall be published annually in the Journal of the Medical Association of the State of Alabama in the January issue.

New Color Scanning Technique

The new medical technique of color scanning, resembling a pointillist painting by the Neo-Impressionist Georges Seurat, gives the physician more medical facts for earlier diagnosis and treatment. This technique depicts the uptake of radioisotopes in the form of colored dots, permitting the delineation of normal and abnormal (pathologic) tissues. To obtain this beautiful life-sized reproduction of an organ, the patient is injected with a minute amount of an appropriate short-lived radioisotope. Scanning has its main use in visualizing inner spaces of the body that cannot be seen in the ordinary x-ray: the brain, thyroid, lung, liver, kidney, pancreas and the bones. Tumors stand out particularly well. Very often metastases, the spread of malignant disease from its primary focus, can be detected with the color scan before they can be visualized on x-ray. Dr. Leonard B. Goldman, nuclear medicine specialist, notes: "These medical facts can be obtained very simply and without discomfort to the patient; it is for this reason that scanning is becoming a routine procedure."—*CMD*, April pp. 569-571.

Sustained circulatory, respirator
and cerebral stimulation for th





(fewer absent doses by absent-minded patients)

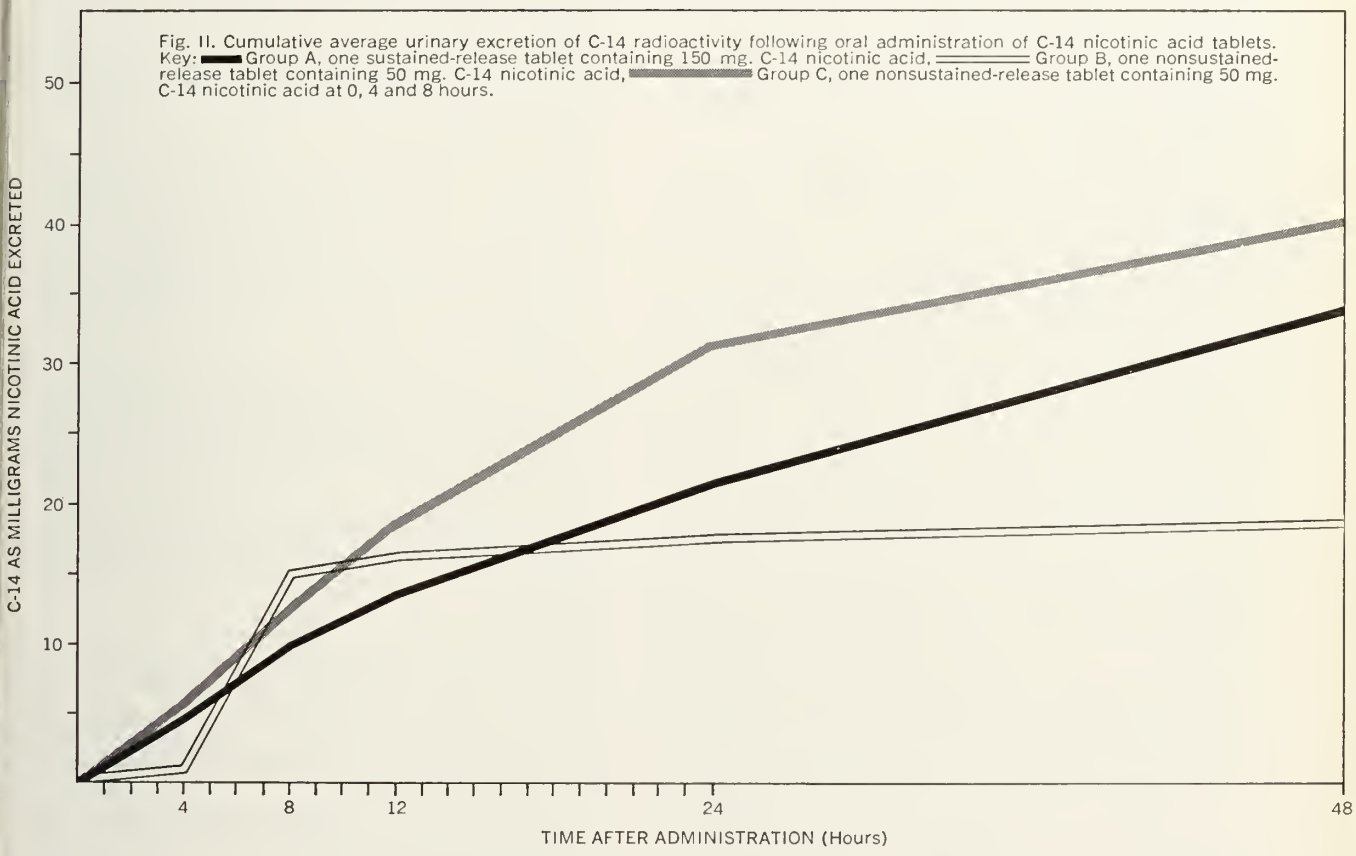
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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A Subsidiary of Philips Electronics and Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Allergy—Internal Medicine—

Age 31; University of Kansas, 1962; Board eligible; seeking solo, group, or associate; Available August, 1968. LW-169

General Practice—

Age 25; Buenos Aires, 1964; seeking solo, group, industrial, associate, or institutional practice. Available: January 1968. LW-170

Age 53; Loma Linda University, 1949; American board eligible; seeking group, industrial, associate or institutional practice. LW-171

Age 41; Guys Hospital, 1959; seeking group or other practice; Available January 1968. LW-171-A

Age 46; Hahnemann Medical College, 1946; interested in location for associate or industrial practice (general practice and surgery.) LW-172

Age 28; University of Missouri 1965; seeking group or associate practice. Available July 1968. LW-173

Age 30; Western Reserve Medical School 1964; seeking group, industrial, associate or institutional practice. Available August 1968. LW-174

Age 34; University of Tennessee 1958; seeking solo, group, industrial, or associate practice. Available immediately. LW-175

Age 30; University of Tennessee 1965; seeking group or associate practice. Available immediately. LW-176

Age 28; Baylor University College of Medicine 1965; seeking group, associate, industrial, institutional or aviation medicine practice. Available immediately. LW-176-A

Internal Medicine—

Age 29; State Univ. of New York at Buffalo, 1963; seeking group or institutional practice. Available July 1968. LW-177

Age 36; Georgetown Univ., 1956; Board eligible, seeking group, associate or institutional practice. LW-178

Age 34; University of Tennessee, 1958; American Board Certified, seeking group, industrial, or institutional practice. Available Spring 1968. LW-179

Obstetrics—Gynecology—

Age 31; Mississippi Medical School, 1961; seeking group or associate practice. Available June 30, 1968. LW-180

Age 32; Medical College of Alabama, 1963; seeking group or associate practice. Available July 1969. LW-181

Age 48; Univ. of Nebraska, Col. of Medicine, 1943; Board Certified; seeking group or institutional practice. LW-182

Age 29; University of Tennessee 1961; Board eligible; seeking assistant or associate practice in north or central Alabama in town of 30,000 plus population. Available July 1968. LW-183

Ophthalmology—

Age 36; Western Reserve U. School of Medicine, 1961; Board eligible; seeking solo, group, or associate practice. Available after March 1968. LW-184

Age 32; Emory University 1961; Board eligible; seeking associate practice. Available January 1969. LW-185

Pathology—

Age 31; University of Michigan, 1961; American Board certified; Available August 1968. LW-186

Age 31; Louisiana State Univ. 1961; Certified American Board; seeking solo or associate practice. Available July 1968. LW-187

Age 33; Univ. of Tennessee 1958; Board eligible; seeking associate practice. Available January 1968. LW-188

Pediatrics—

Age 30; Medical College of Alabama, 1962; Board eligible; seeking associate or assistant practice. Available February 1968. LW-189

Age 31; Vanderbilt University 1963; Board eligible; seeking group practice. Available August 1968. LW-190

Age 28; University of Texas, Southwestern, 1963; Board eligible; seeking group or associate practice. Available September 1968. LW-191

Psychiatry—

Age 33; Western Reserve University, 1961; Board eligible; seeking solo, industrial, or associate practice. LW-192

Age 43; University of Western Ontario 1957; Board eligible; National Board; seeking group practice. Available immediately. LW-193

Radiology—

Age 31; University of Illinois, 1962; Board certified; seeking solo, group, or associate practice. Available July 1968. LW-194

Age 36; University of Tennessee 1958; seeking solo, group or associate practice. Available June 1968. LW-195

Age 52; Medical College of Virginia 1943; Certified American Board; seeking group, solo, associate, or institutional practice. Available immediately. LW-196

(Continued on Page 842)

Physicians Wanted

General Practitioners—

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. One physician died recently. Hospital and nursing home in the city. PW-113

For partnership practice in clinic in town of 2,000 population in area of 10,000 population located in North-central Alabama. 40-bed hospital. PW-114

For assistant or associate in clinic located in town of 10,000 population located in Northeast Alabama. 65-bed Hill-Burton hospital. PW-115

For group practice in town of 10,000 population in North Alabama. PW-116

For town of 1,000 plus population in west-central Alabama in trade area of 20,000. Clinic available. Nearest city of approximately 70,000 population is located a distance of 17 miles. Farming, cattle, timber, and manufacturing plants are principal resources of the area. Churches, schools, and recreational advantages. PW-117

Opportunity in town of approximately 3,000 population in trade area of over 10,000 population located in South Alabama within 50 miles of Gulf Coast. Clinic available. PW-118

Opportunity for one or more doctors in rapidly expanding eastern suburb of Birmingham. Attractive brick building consisting of 10 rooms and adjacent parking facilities. PW-119

Physician needed to associate with a large industrial concern in a northern Alabama metropolitan area of over 100,000. Four physicians on staff. Starting salary $16,000-$18,000 depending on qualifications. Excellent working conditions and fringe benefits. Good advancement opportunities. PW-120

For solo practice in town of approximately 17,000 population located in east central Alabama. 48-bed general hospital. Arrangements available for office space. Excellent recreational advantages which include hunting, fishing and water sports. City owned airport. Numerous civic clubs. Excellent schools and churches. Expanding industrial and agricultural area. PW-121

Physician interested in Internal Medicine and Chest Diseases to provide general medical services in 184 bed Tuberculosis Hospital in North Alabama. References and experience data required in advance. U. S. citizens and fully licensed physicians given first choice. Others will be considered upon request. Salary open. PW-122

Opportunity in town of approximately 2,000 population located in Northwest Alabama in trade area of 15,000 population. Spacious clinic building available rent free. Possibility for industrial position. Two hospitals with 170 beds located in adjoining city. PW-123

For town in South Alabama with 20,000 trade area population, within 10 miles of Gulf beaches and large city. Excellent hunting and fishing. Numerous industries offering stable employment for area. Furnished office available rent free. Hospital presently engaged in complete remodeling and expansion. Excellent cooperation between hospital and medical staff. PW-124

For town in Southwest Alabama, approximately 1,000 population in trade area of approximately 5,000 population, within 60 miles of large city of 35,000. Nearest hospital is located 18 miles away. Arrangements available for office space. Small industries and agricultural production. Civic clubs and golf course nearby. Churches and school. PW-125

Opportunity in city of 25,000 population located in Southeast Alabama within less than 100 miles of the Gulf Coast. Offices available in a medical center complex adjacent to large hospital. PW-126

For town of approximately 1,000 population in population center of 10,000 located in Southwest Alabama within 90 miles of the Gulf coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-127

For town of 2,000 population in trade area of 5,000 located in south Alabama, within 24 miles of large city of 37,000 population. Nearest hospital (50 beds) is 12 miles away. One physician presently in practice in town. Office space available. Military base, farming, and small industries afford resources. Numerous civic clubs; two schools and five churches. PW-128

General Practitioners—Surgeon—

For two towns with combined population of approximately 5,000 in West Alabama. Seeking one or more physicians; possibility of four additional physicians needed in the county. Hospital is located in each town and plans are underway for expansion of facilities. Office space available. Nearest city with 50,000 population is 30 miles. PW-129

General Practitioner—Obstetrician—

Opportunity for physician in city of 15,000-20,000 population located in Southeast Alabama in college town. Interest in surgery is also desirable. PW-130

General Practitioner—Internist—

For partnership or associate practice. Excellent location, fully equipped office in city of 12,000 population. 130-bed accredited hospital. Possibility for larger clinic group. PW-131

Surgeon—

Board qualified or Board certified surgeon for partnership in 1968 in city of approximately 40,000 population located in Southeast Alabama. PW-132

Wanted for practice leading to partnership in clinic located in city of 10,000 population in area of 30,000 population in Northwest Alabama. Starting salary of $20,000-$30,000 depending on experience and training. 75-bed accredited hospital. PW-133

(Continued on Page 842)

LOCATIONS WANTED

(Continued from Page 840)

Surgery—

Age 42; Toronto, 1950; American Board certified; seeking solo, group, industrial, associate or institutional practice. LW-197

Age 37; University of Illinois, 1960; American Board certified; seeking solo or associate practice; available July 1968. LW-198

Age 34; McGill University, 1959; seeking industrial or institutional practice. Available July 1968. LW-199

PHYSICIANS WANTED

(Continued from Page 841)

Student Health—

New 75-bed facility to be occupied in late 1968. Present staff of seven full time physicians. Seeking one additional physician for fall 1967 and two (one as a replacement) for fall 1968. Salary negotiable. Appointments are full time with regular University benefits. PW-134

Full time salaried position of assistant director on staff of four. 65-bed well equipped infirmary with adequate office space. Excellent laboratory and x-ray facilities. Liberal fringe benefits. PW-135



for psychiatric treatment

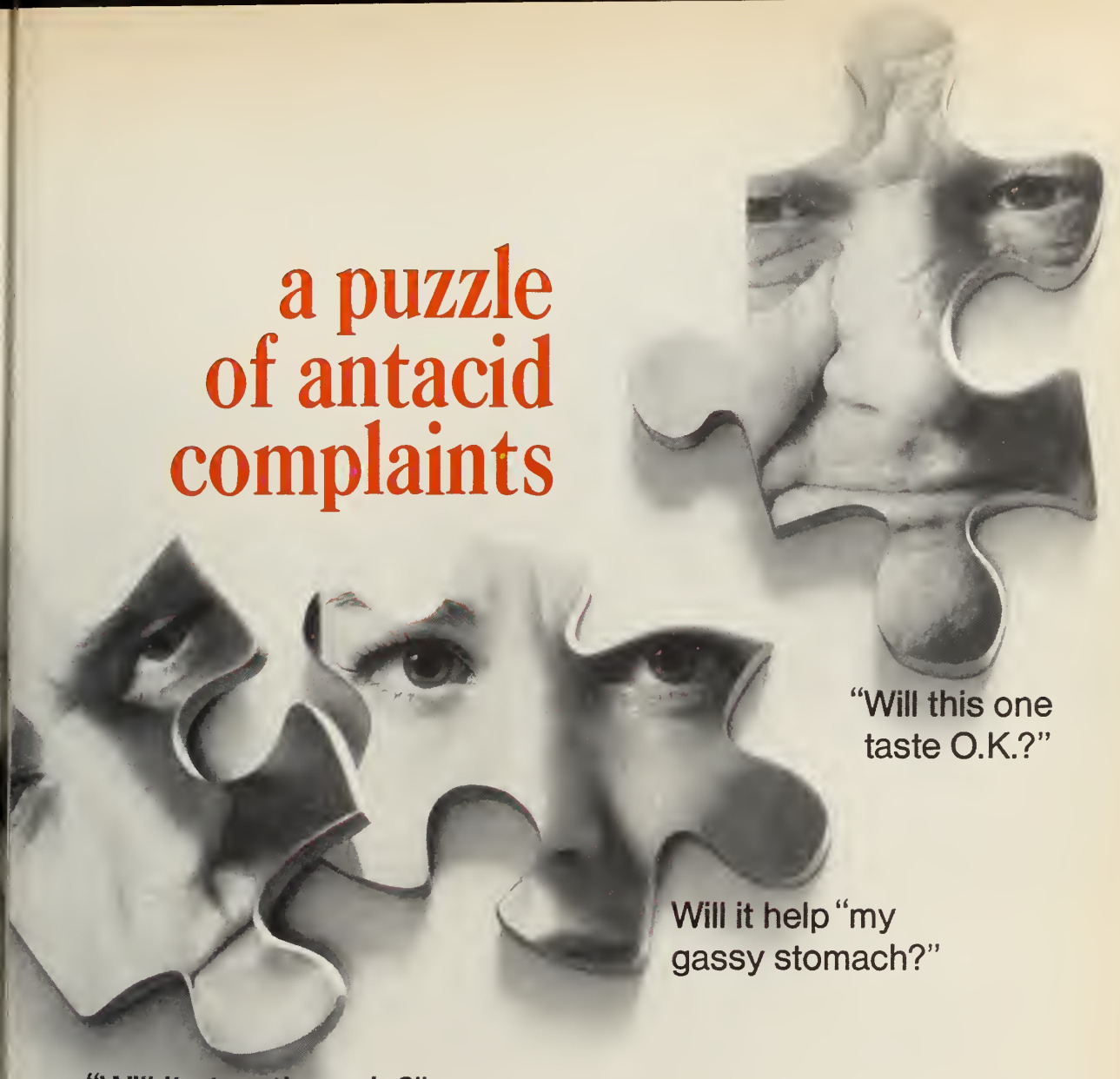
Peachtree Hospital, located in Atlanta, Georgia, is a complete psychiatric, alcoholic and drug addiction treatment facility accredited by the Joint Commission on Accreditation of Hospitals ☐ The hospital has 65 beds, 47 of which are devoted to the care of psychiatric patients and 18 of which, in a separate area, are for patients with acute cases of chronic alcoholism or drug addiction ☐ Treatment procedures include psychotherapy, electroconvulsive shock therapy, subinsulin coma and chemotherapy ☐ *We will be pleased to provide further information upon request.*

ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS

peachtree hospital

41 PEACHTREE PLACE, N. E. / TELEPHONE 873-5681 / ATLANTA 9, GEORGIA

a puzzle of antacid complaints



"Will this one taste O.K.?"

Will it help "my gassy stomach?"

"Will it stop the pain?"

Mylanta®

aluminum and magnesium hydroxide *plus* simethicone

a solution to peptic ulcer distress

Effective neutralization—
with the two most widely prescribed antacids: aluminum and magnesium hydroxides.

Concomitant relief of G.I. gas distress—
with the proven[1] defoaming action of simethicone.

Prolonged acceptance confirmed—
in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg.
Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

Stuart

Division/Pasadena, Calif.
ATLAS CHEMICAL INDUSTRIES, INC.

new evidence for TAO® (triacetyl-oleandomycin)

a macrolide antibiotic for the frequently seen respiratory infection in the office and for a problem pathogen* in the hospital.

*Staphylococcus aureus

study I[1]

Results of a 1967 in vitro—in vivo correlation study involving 116 patients with Gram-positive coccal infections in five institutions. All patients were given TAO prior to determining the susceptibility of the offending organism.

97.0%
of the organisms were susceptible to oleandomycin*

98.0%
of the patients responded favorably to TAO® (triacetyloleandomycin)

*In some cases more than one pathogenic organism was isolated from the patient.

study II[2]

Effect of oral therapy with TAO, erythromycin, and cloxacillin on the survival time of Rhesus monkeys after intravenous inoculations of lethal doses of staphylococci, phage type 80/81.
(8 monkeys in each group)

conclusion:

*Under the conditions of this study and the doses employed, it was found that

TAO® (triacetyl-oleandomycin)
was far superior to erythromycin, as was cloxacillin, a bactericidal agent, and of particular interest, "...bacteriostatic triacetyloleandomycin was as effective or perhaps superior to cloxacillin in preventing lethal (staphylococcal, phage type 80/81) infection."

*It should be pointed out that results obtained in an experimental study of this nature may not necessarily be directly extrapolated to the clinical situation as it pertains to man.

TAO Rx Information

INDICATIONS: Include streptococci, staphylococci, pneumococci and gonococci. Recommended for acute, severe infections where adequate sensitivity testing has demonstrated susceptibility to this antibiotic and resistance to less toxic agents. **CONTRAINDICATIONS AND PRECAUTIONS:** Not recommended for prophylaxis or in the treatment of infectious processes which may require more than ten days continuous therapy. In view of the possible hepatoxicity of this drug when therapy beyond ten days proves necessary, other less toxic agents should be used. If clinical judgement dictates continuation of therapy for longer periods, serial monitoring of liver profile is recommended, and the drug should be discontinued at the first evidence of any form of liver abnormality. When treating gonorrhea in which lesions of primary or secondary syphilis are suspected, proper diagnostic procedures, including darkfield examinations, should be followed. In other cases in which concomitant syphilis is suspected, monthly serological tests should be made for at least four months. Contraindicated in pre-existing liver disease or dysfunction, and in individuals hypersensitive to the drug. Although reactions of an allergic nature are infrequent and seldom severe, those of the anaphylactoid type have occurred on rare occasions. When used in streptococcal infections, therapy should be continued for ten days to prevent the development of rheumatic fever or glomerulonephritis. The use of antibiotics may occasionally permit overgrowth of nonsusceptible organisms. A resistant infection or superinfection requires re-evaluation of the patient's therapy. In the event such occurs with this drug the medication should be discontinued, and specific antibacterial and supportive therapy instituted.

References: 1. Isenberg, H. D.: Clinical Evaluation of Laboratory Guidance to Antibiotic Therapy; Health Laboratory Science (July) 1967. 2. Saslaw, S., Carlisle, H. N.: Studies on Therapy of Staphylococcal Infections in Monkeys. 1. Comparison of Cloxacillin, Triacetyloleandomycin and Erythromycin. Proc. Soc. Exp. Biol. & Med.: Vol. 125, No. 4 (Aug.-Sept.) 1967.

ROERIG Rx
J. B. ROERIG DIVISION
CHAS. PFIZER & CO., INC.
235 EAST 42nd STREET
NEW YORK, N.Y. 10017

For your impatient cold patients

Two sprays from NTZ Nasal Spray—and nasal congestion, rhinorrhea, sneezing are reduced for *immediate* comfort for patients with colds.

NTZ is more than a simple vasoconstrictor. It contains:

Neo-Synephrine® **(brand of phenylephrine) HCl 0.5 per cent,** the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction on contact.

Thenfadil® **(brand of thenyldiamine) HCl 0.1 per cent,** topical antihistamine for reduction of rhinorrhea, sneezing or itching. It combats the allergic reactions that may occur in colds or sinusitis.

Zephiran® **(brand of benzalkonium, as chloride, refined) 1:5000,** antiseptic preservative and wetting agent to promote penetration and spread of the formula.

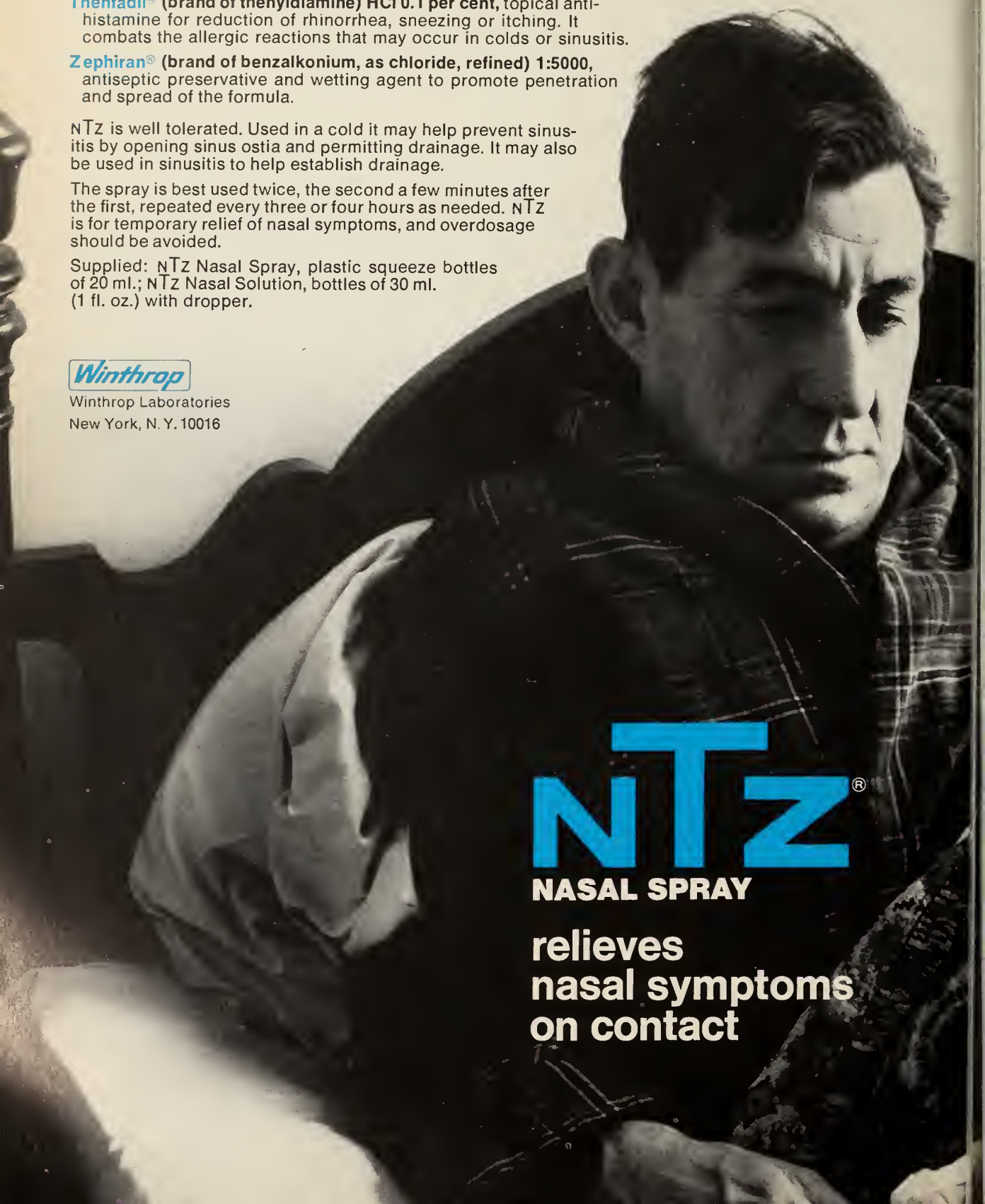
NTZ is well tolerated. Used in a cold it may help prevent sinusitis by opening sinus ostia and permitting drainage. It may also be used in sinusitis to help establish drainage.

The spray is best used twice, the second a few minutes after the first, repeated every three or four hours as needed. NTZ is for temporary relief of nasal symptoms, and overdosage should be avoided.

Supplied: NTZ Nasal Spray, plastic squeeze bottles of 20 ml.; NTZ Nasal Solution, bottles of 30 ml. (1 fl. oz.) with dropper.

Winthrop

Winthrop Laboratories
New York, N. Y. 10016



NTZ®

NASAL SPRAY

relieves nasal symptoms on contact

Drug Makers Adopt New Ad-Promotion Code

A comprehensive new code covering the advertising and promotion of prescription drug products has been adopted by the Pharmaceutical Manufacturers Association.

In announcing the new "Code of Fair Practices," PMA President C. Joseph Stetler termed it "a clear demonstration of the industry's good faith and determination to safeguard and improve the high standards of drug advertising and promotion."

He said that, in order to assure compliance with Federal laws, the code was submitted in advance to the Department of Justice for study. Final clearance from the Department has been obtained.

Stetler noted that the code is an outgrowth of the industry's recognition of "the importance to the public health" of providing the medical profession with accurate information on drug products "and the need to assure that PMA members, their employees and agents present such information fairly and objectively."

The code covers advertising and promotional communications, including journal advertising, mailing pieces, films, exhibits and similar visual presentations. Also covered are written instructions and materials prepared for sales or professional representatives.

Calling for "complete and accurate" information for marketed prescription drug products, the code states that claims should "not be stronger" than substantial scientific evidence "or other responsible medical opinion warrants."

"Every effort," notes the code, "should be made to avoid ambiguity," and it calls for "a valid scientific basis" when comparing drug products.

While the code prohibits premature public communications on new drugs, it clearly states no intention to restrict "a full and proper exchange of scientific information . . . including appropriate dissemination of investigational findings in scientific or lay communications media."

The code also makes it clear that no restriction is placed on public disclosures to stockholders "and others concerning any drug product as may be required or desirable under law, rule, or regulation."

Encouraging PMA member firms to register complaints with respect to violations, the association expresses in the code its "unqualified intent" that each and every member shall follow strictly the principles set forth.

The code declares that any member firm "which clearly and persistently violates the Code may be asked to resign from the association."

Under the formal title of the "PMA Code of Fair Practices in the Promotion of Drug Products," the code replaces an earlier set of principles which has covered ethical drug promotion practices since 1958.

PMA is a non-profit, scientific, professional and trade organization representing the manufacturers of more than 95 per cent of the nation's prescription drug products.

A complete copy of the "Code of Fair Practices in the Promotion of Drug Products" follows:

PHARMACEUTICAL MANUFACTURERS ASSOCIATION CODE OF FAIR PRACTICES IN THE PROMOTION OF DRUG PRODUCTS

September, 1967

Recognizing the importance to the public health of providing the medical profession with accurate information on drug products, and the need to assure that PMA members, their employees and agents present such information fairly and objectively,

The Pharmaceutical Manufacturers Association hereby promulgates and adopts the following Code of Fair Practices in the Pro-

motion of Drug Products as a revision of its 1958 statement of Principles on the same subject:

A. Code Standards

1. As used in this Code:

(a) The term "drug product" means any pharmaceutical or biological product intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease in humans, or to affect the structure or any function of the human body, which is promoted and advertised to the medical profession rather than directly to the lay public.

(b) The term "promotional communications" means (1) journal advertising, mailing pieces, and similar written materials (including, to the extent reasonably practicable, films, exhibits and similar visual presentations) directed to members of the medical profession by the pharmaceutical industry for the purpose of promoting a drug product and (2) written instructions and materials prepared for sales or professional representatives containing representations to be made by them to members of the medical profession. Where compliance with the requirements of this Code is not reasonably practicable within the format of a film, exhibit or similar visual presentation, written materials meeting those requirements shall be distributed to all members of the medical profession attending the presentation.

(c) The term "medical profession" includes allied professions in the health field.

2. Complete and accurate information concerning marketed drug products should be made available promptly to the medical profession. Promotional communications to the medical profession which include a description of indicated uses or dosage recommendations for a prescription drug product

Hill Crest
HOSPITAL
(Formerly Hill Crest Sanitarium)

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialties.



MEDICAL DIRECTOR:
James A. Becton, M.D., F.A.P.A.

CLINICAL DIRECTORS:
James K. Ward, M.D., F.A.P.A.
Hardin M. Ritchey, M.D., F.A.P.A.

HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . .
. . . NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS . . .
ALABAMA HOSPITAL ASSOCIATION . . .
BIRMINGHAM REGIONAL HOSPITAL COUNCIL.

HILL CREST IS FULLY ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS.

Hill Crest
HOSPITAL
BIRMINGHAM, ALABAMA

should also include a summary (or full disclosure where required by law) of side effects, precautions, warnings and contraindications, and of effectiveness for the described indicated uses. Such summary should have sufficient prominence in terms of type size, location and similar factors to provide reasonable assurance that it will be observed.

3. Statements in promotional communications should be based upon substantial scientific evidence or other responsible medical opinion. Claims should not be stronger than such evidence warrants. Every effort should be made to avoid ambiguity. Whenever statistical or background information or references to unpublished literature or observations are used in promotional communications, the source material should be available to the medical profession upon request.

4. Statements with respect to or quotations from medical literature or from the personal communications of clinical investigators in promotional communications should not distort the intended meaning of the author or the significance of the study.

5. Any comparison with other drug products should be made upon a valid scientific basis.

6. No public communication by a manufacturer shall be made with the intent of promoting a drug product as safe and effective for any use before the required approval of the drug product for marketing for such use is obtained. However, this provision is not intended to abridge the right of the scientific community and the public to be fully informed concerning scientific and medical progress. Thus it is not intended to restrict a full and proper exchange of scientific information concerning a drug product, including appropriate dissemination of investigational findings in scientific or lay communications media, nor to restrict public disclosure to stockholders and others concerning any drug product as may be required or desirable under law, rule or regulation.

7. Promotional communications should have medical clearance before their release.

B. Code Administration

It is the unqualified intent of the Association that each member shall follow strictly the principles set forth in the Code. To that end the members of the PMA are encouraged to submit information to the President with respect to any alleged breach of this Code by any other member. On the basis of such information and any other information available to him, the President shall take appropriate action including, if required, referral of the information to an ad hoc committee of the Board. The committee shall be chosen by the Chairman of the Board unless the member company represented by the Chairman has submitted such information or is the subject of such information, in which case the President shall make the appointments. The General Counsel of the Association shall act as secretary of each ad hoc committee and shall report the committee's findings to the President who in turn will refer the findings to the Board of Directors.

Any member firm which clearly and persistently violates the Code may be asked by the Board of Directors to resign from the Association.

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

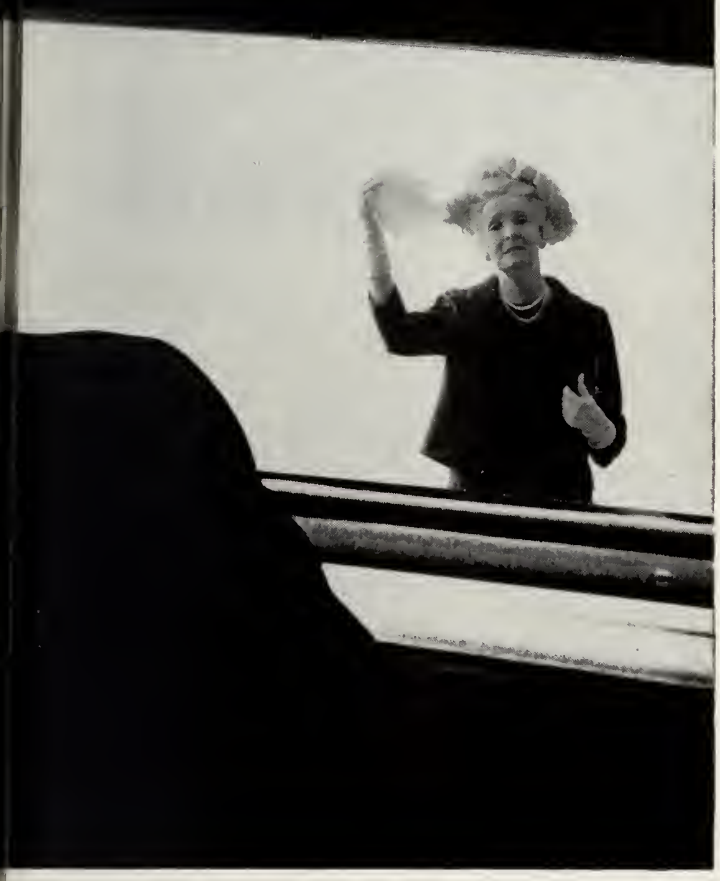
1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham



Indications: Tofrānil is recommended for the treatment of depressive states of diverse psychopathology.
Contraindications: The concomitant use of Tofrānil and monoamine oxidase inhibiting (M.A.O.I.) compounds is contraindicated. Hyperpyretic crises or severe convulsive seizures may occur. Potentiation of adverse effects can be serious or even fatal. An interval of at least 7 days after M.A.O.I. therapy has been discontinued should be allowed before Tofrānil may be substituted. Initial Tofrānil dosage should be low, increases should be gradual, and the patient's progress should be carefully observed.
Warning: Clinical reports have suggested that there may be a risk of teratogenesis associated with the use of this compound during the first trimester of pregnancy. Unless, in the opinion of the prescribing physician, the potential benefits outweigh the possible risks, Tofrānil should not be used during the first trimester of pregnancy.
Cardiovascular complications, including myocardial infarction and arrhythmias, have occasionally occurred in susceptible individuals. Patients with cardiovascular disease should be given the drug only under careful observation and in low dosage.
Precautions: Since suicide is always a possibility in severely depressed patients and one which may persist until significant remission occurs, such patients should be carefully supervised during early treatment with Tofrānil. Some severely depressed patients may also require hospitalization and/or concomitant electroconvulsive therapy.
Because of its anticholinergic effect, caution should be observed in prescribing Tofrānil for patients with increased intraocular pressure.
In rare instances, transient cardi
arrhythmias have occurred in hy
thyroid patients and in patients r
ceiving thyroid medication when
Tofrānil was added to the regime
Imipramine may block the pharm
cologic activity of guanethidine a
other related adrenergic neuron-
blocking agents.
The drug is not recommended at
present time in patients under 12
of age.
Adverse Reactions: Dryness of th
mouth, tachycardia, constipation
turbances of accommodation, sw
ing, dizziness, weight gain, urina
frequency or retention, nausea a
vomiting, peripheral neuritis, mil
parkinson-like syndrome, tremor
rare cases of falling in elderly pa
tients, confusional states (with s
symptoms as hallucinations and
orientation), activation of psycho
schizophrenics and agitation (in

When a milestone in life is marred by depression...



Often in the mind of the lonely, widowed, depression-prone individual, she's not gaining a daughter...she's losing a son. The occasion may be marred by such symptoms of depression as feelings of sadness, incapacity, helplessness and hopelessness.

In about 3 out of 4 cases, Tofrānil relieves symptoms of primary depression.

As maintenance therapy in primary depressive illness, it helps prevent relapse.

Although toxic reactions severe enough to require discontinuation of Tofrānil are uncommon, in patients with cardiovascular disease, thyroid disorders, increased intraocular pressure, or in those receiving anticholinergics (including antiparkinsonism agents), the special precautions listed in the Prescribing Information should be carefully observed. The use of Tofrānil in patients receiving M.A.O.I.'s is contraindicated.

Tofrānil® imipramine hydrochloride
Geigy

pomanic and manic episodes)
may require dosage reduction
or addition of a tranquilizer or
brary discontinuation of the drug,
otiform seizures, orthostatic
ension and substantial blood
ure fall in hypertensive patients,
ra, transient jaundice, bone mar-
epression including agranulocy-
sensitization and skin rash
ding photosensitization, eosino-
, and mild withdrawal symptoms
dden discontinuation after pro-
d treatment with high doses.
sional hormonal effects (im-
nce, decreased libido, and estro-
effects) may be observed.
bine-like effects may be more
ounced (e.g. paralytic ileus) in
eptible patients and in those
anticholinergic agents (includ-
ntiparkinsonism drugs).
atient Adult Dosage: Initially,
g. daily, increased, if necessary, to 150 or 200 mg. Maintenance dosage may be lower, 50 to 150 mg. daily, if possible.
Geriatric and Adolescent Dosage: Initially, 30 or 40 mg. daily, which may be increased according to response and tolerance. It is usually unnecessary to exceed 100 mg. daily.
A lag in therapeutic response, lasting from a few days to a few weeks, should be expected. When dosage recommendations are already being followed, increasing the dosage does not normally shorten this latency period and may increase the incidence of adverse reactions.
Availability: Tofrānil: Round tablets of 25 and 50 mg.; triangular tablets of 10 mg. for geriatric and adolescent use; and ampuls, each containing 25 mg. in 2 cc. for I.M. administration.
(B)46-850-C
For complete details, please refer to the full Prescribing Information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502

Three New Directors Named To UAB Medical Center Foundation

Three new directors have been appointed to the University of Alabama Medical Center Foundation. Mr. Frank E. Spain, Mr. Joseph S. Smolian, and Mr. George C. Rust were named to the board of directors, according to an announcement by Dr. Frank A. Rose, President of the University of Alabama, and Dr. Joseph F. Volker, vice president for Birmingham affairs.

The Medical Center Foundation is a nonprofit organization established to ". . . promote, encourage, and aid in scientific investigation, research, education, training, and allied activities relating to the cause, cure and amelioration of human disease and disability, and the dissemination of the results of such investigation and research. . . ."

The three new directors have actively supported the Medical Center for many years, contributing their "interests, energies and financial support to the cause of health care in Alabama," the announcement said.

"Without the help of interested citizens such as the Spains, the Rusts, and the Smolians, the Medical Center could not have progressed to the position of eminence it enjoys today," Dr. Rose and Dr. Volker said. "Because of their understanding of the special problems relating to superior programs in education, research and patient care, we are most fortunate to have these capable and interested individuals serving on the board of directors of the Foundation."

The Foundation is primarily interested in providing means for the Medical Center whereby scientific discoveries, health education and training can proceed at a rapid rate with the desired level of excellence, Dr. Volker indicated. Under the charter of the Foundation, funds can also be made available to the broad programs of the University of Alabama, or any health agency affiliated with or located in the geographical area of the Medical Center.



Mr. Rust



Mr. Smolian



Mr. Spain

Frank Spain, a senior partner in the law firm of Spain, Gillon, Riley, Tate and Ansley, has served the community in many capacities. He has been chairman of the Jefferson County Community Chest; chairman of the Housing Authority of the Birmingham District; president of the Birmingham Chamber of Commerce; honorary vice president, Alabama Society for Crippled Children and Adults; director, Eye Foundation; member, Advisory Council, Southern Research Institute; member, Advisory Board, Cumberland Law School of Samford University; trustee, Birmingham-Southern College.

Mr. Smolian, long interested in health care for the people of this area, has been a prime benefactor of the Medical Center. Gifts from Mr. and Mrs. Smolian have enabled the Medical Center to construct the Smolian Psychiatric Clinic and later, a two-floor addition to the building. In the early 1950's, Mr. and Mrs. Smolian helped to lead a campaign to launch a dynamic mental health program, lending not only their own energies, interest and financial support, but "inspiring others to lend their best efforts toward mental health." They took an active part in supporting legislation for a bond issue which resulted in the construction of a 100-bed psychiatric wing for University Hospital. Prior to the construction of the Smolian Psychiatric Clinic, Mr. Smolian provided funds for renovation and furnishing of a building to be used as an out-patient clinic. In the past, he supplied funds for support of residency training in psychiatry.

(Continued on Page 854)



New, Long-term Psychiatric Facility

The new forty bed Parkwood Hospital specializes in long-term treatment of the mentally ill. Under the direction of a Medical Director, the hospital facilities are available to over thirty psychiatrists who are on its staff. Parkwood provides a full complement of exceptional facilities including X-ray, laboratory, pharmacy, occupational and music therapy, patient beauty parlor and an outdoor recreational area. ☐ Special efforts were made to combine maximum patient comfort with a warm, secure, residential atmosphere readily conducive to psychotherapy. ☐ We will be pleased to provide further information upon request.

Accredited by the Joint Commission on Accreditation of Hospitals

PARKWOOD HOSPITAL

1999 Cliff Valley Way, N.E./Atlanta, Georgia 30329/Phone 634-5166 (404)

(Continued from Page 852)

Mr. Smolian's interest in the health fields has also been manifested on a national as well as state level. He has been designated a "founder" of the Albert Einstein Medical School, and serves as Alabama chairman for the Jewish Hospital in Denver, Colorado.

George Rust, executive vice president of the Rust Engineering Company, has vigorously supported programs of the University in Birmingham, primarily those relating to engineering and the computer facility. Mr. Rust was a leader in the local campaign to raise funds for construction of the Engineering Building on the UAB campus, and contributed substantially to the fund. More recent gifts from Mr. Rust and the Rust Foundation, will go toward a new, larger structure to house the Computer Research Laboratory. Work is scheduled to begin soon on this building.

For the past several years Mr. Rust has served on the boards of directors of Junior Achievement of Jefferson County, Inc. and the Metropolitan Dinner Club. He has also served on the Board of Directors of the Industrial Health Council, the Opera Advisory Committee of the Birmingham Music Club, and as Jefferson County co-chairman of the American Cancer Society.

Dr. Joseph F. Volker serves as chairman of the board of directors of the Medical Center Foundation. Also serving on the board are Dr. Rose and Mr. Ehney A. Camp, Jr., executive vice president of Liberty National Life Insurance Company and member of the University's Board of Trustees.

Officers of the Foundation are: president, Dr. Volker; vice presidents, Dr. S. Richardson Hill, Jr., dean, Medical College of Alabama, Dr. Charles A. McCallum, Jr., dean, University of Alabama School of Dentistry, and Robert Holters, administrator, University of Alabama Hospitals and Clinics; secretary-treasurer, Dr. W. Paul Brann, assistant to the vice president for Birmingham affairs. Attorney for the Foundation is Mr. Rufus Bealle, University attorney, from Tuscaloosa.

Postgraduate Courses to be Presented

The American College of Physicians will present a Postgraduate Course on "Neurology and the Internist," on January 15-19, 1968. The meeting place is the Eden Roc Hotel, Miami Beach, Florida.

The objective of this program is to stimulate as much interchange as possible among the faculty and the individuals attending. A considerable part of one day will be spent on the neurologic examination since the relative lack of this skill seems to present the greatest handicap to internists. Each aspect of the neurological examination will be discussed in detail and appropriately illustrated by motion picture film strips.

Panel discussions and questions and answers after each appropriate group of presentations will allow the audience to probe the faculty.

A concentrated two-day course covering the constructive knowledge of the diagnostic and therapeutic aspects of ulcerative disease of the Gastrointestinal tract will be conducted by the Continuing Education Department of Louisiana State University School of Medicine in New Orleans, Louisiana, Thursday, February 22, and Friday, February 23, 1968. Registration fee, $50.

An outstanding faculty will give purposeful instruction in the areas of esophagitis, "peptic" ulcer, regional enteritis and ulcerative colitis. Diagnostic specificity, therapeutic concepts medical and surgical, will be elucidated by individuals recognized for their creditable contributions in these areas.

Address Inquiries to Director, Continuing Medical Education, Room 231, LSU School of Medicine, 1542 Tulane Avenue, New Orleans, La. 70112.

A Star-studded Meeting - - -

THE MEDICAL ASSOCIATION of the STATE OF ALABAMA

107th ANNUAL MEETING
April 18-19-20, 1968

BIRMINGHAM



ALAPAC Luncheon
FRIDAY, APRIL 19
GUEST SPEAKER
LT. GOV. ALBERT BREWER



E. BRYCE ROBINSON, M.D.
PRESIDENT, MASA



MILFORD O. ROUSE, M.D.
DALLAS, TEXAS
PRESIDENT AMA



JEROME COCHRAN LECTURE
FRIDAY, APRIL 19
GUEST LECTURER
GORDON McHARDY, M.D.
NEW ORLEANS



E. L. McCAFFERTY, JR., M.D.
PRESIDENT-ELECT, MASA

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Why Health Insurance Costs Are Increasing

A specialist in health insurance today attributed "skyrocketing" medical costs to five factors: today's patient is able and willing to pay more; he is making greater use of existing health services; his insurance coverage has broadened; hospital labor costs keep rising and governmental health programs are increasing.

Speaking to the 21st annual conference of the Council on Employee Benefits in New York, Morton D. Miller, vice president and actuary of The Equitable Life Assurance Society, predicted that "increasing costs probably will be with us for as long as the economy sails along and people in this country place high values on health." But he told his audience of business executives, "there is no earthly excuse for our not getting full value for every last cent in every dollar we spend."

To get more value, it has been suggested that the concept of group practice for doctors be expanded, Mr. Miller said. Other suggestions, he added, include greater use of auxiliary health personnel, finding new and better ways of delivering health services, improving hospital efficiency and providing more comprehensive insurance coverage.

"The health system needs hard-headed management counsel," Mr. Miller declared. Business, he said, has "an obligation to participate in comprehensive health action-planning, community by community." Communities, he added, need the voluntary participation of individual business executives.

It has also been suggested, Mr. Miller said, that expanded group practice would enable doctors to serve more patients by permitting them to set up common facilities and treat, at lower cost, patients they otherwise now serve in hospitals.

Wider use of auxiliary health personnel, Mr. Miller explained, would free the physician's time to do those things which only he is qualified to perform. He suggested further expansion of the role of the nurse and said perhaps we could develop the civilian counterpart of the voluntary medical corpsman.

Future research and development activities will likely show the way to cost-cutting measures in delivering health services, Mr. Miller said. "Partnership" activity aided by the proposed National Center for Health Services Research and Development, he said, may give answers as to whether a future health care system develops around preventive and chronic care facilities combined with hospitals, around the method of payment, around group practice, combinations of these, or something completely different.

Mr. Miller proposed that hospital costs can be kept down through improved management, better systems of cost accounting, and further automation of records. He said: "We can also expect a searching attempt to find new ways for reimbursing hospital costs which will have incentives built in for efficiency and cost improvement."

More comprehensive health insurance benefits, he said, will result in a more balanced coverage of a broader spectrum of medical services. Insurers, he declared, "have major responsibilities to help improve not only the financing mechanism, but the effectiveness of health care and the systems through which it is provided."

Mr. Miller said that the health benefits system has been geared to hospital support, and the buyers of insurance have accepted what the sellers of health care had to offer. Future benefits, he said, will be designed to give direct incentives for improvements "to assure our money's worth for the health care dollar, to assure a better balance in the health care system."

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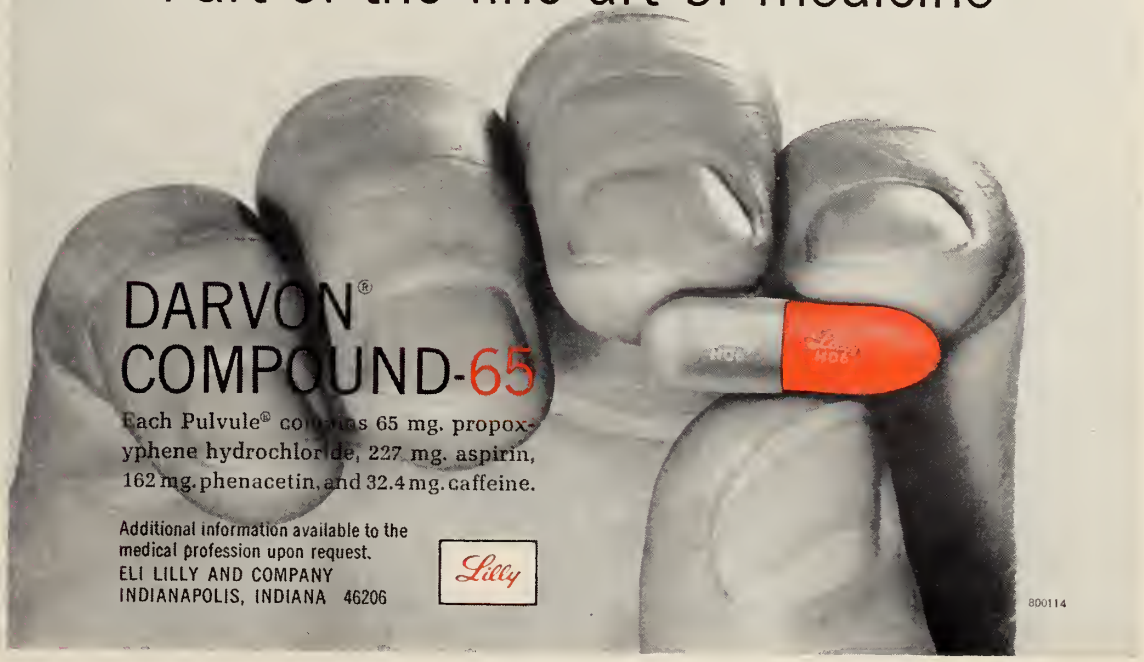
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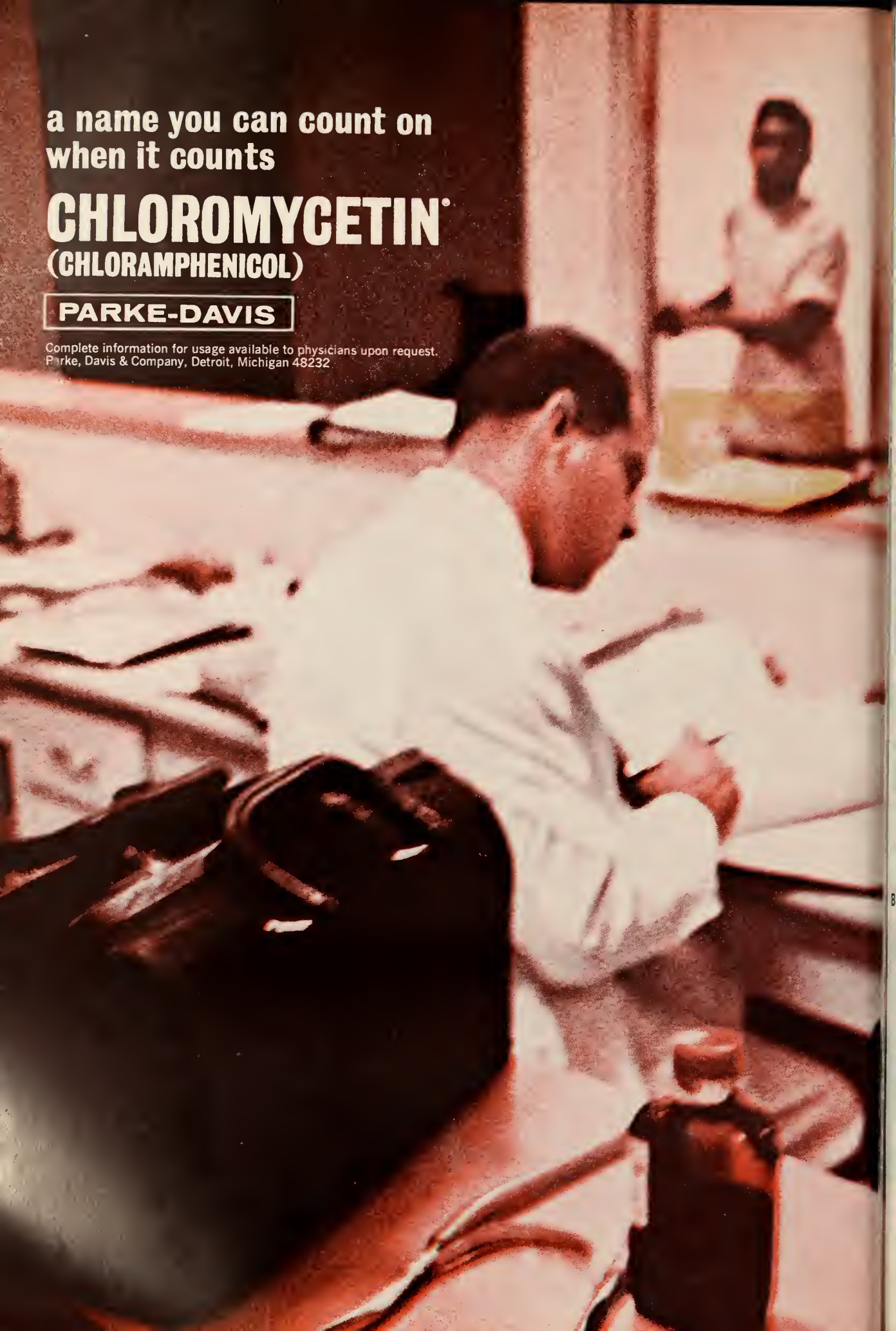
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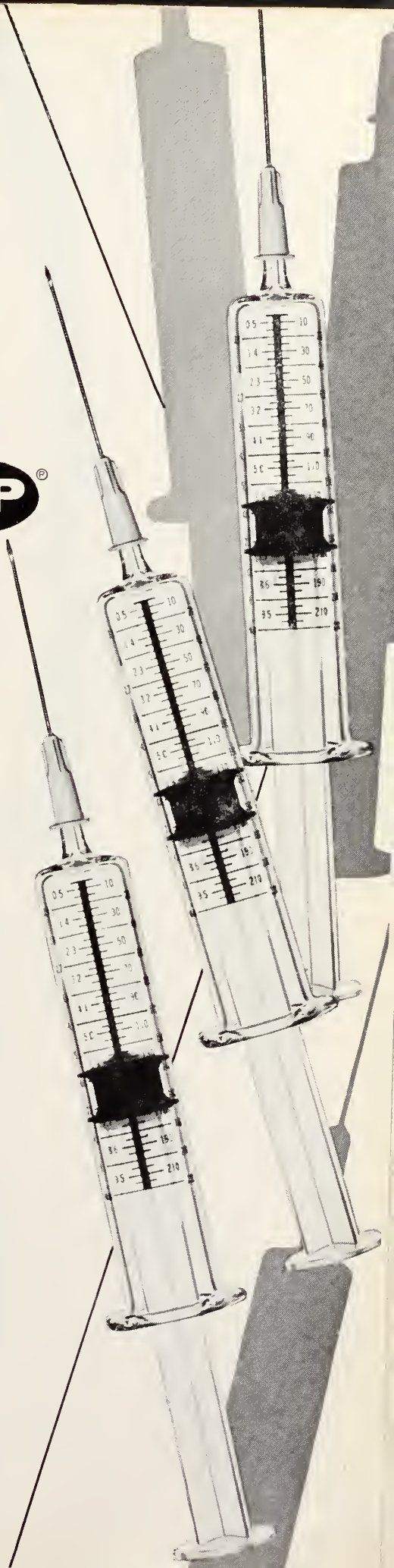
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Volume 37 • February, 1968 • No. 8

Office of Publication

19 So. Jackson St. Montgomery, Ala. 36104

Subscription Price $5.00 Per Year

$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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President's Page

(The President's Page this month will be a fine guest editorial, "The Anatomy of Ethics," by a good friend of ours, Jere W. Annis, M. D. of Lakeland, Florida. This appeared in the January, 1967, issue of *Group Practice*. Dr. Annis is immediate past president of the American Association of Medical Clinics, is past president of the Florida Medical Association, and is currently a member of the House of Delegates of the American Medical Association. His article follows in condensed form.)

"THE ANATOMY OF ETHICS"



Dr. E. Bryce Robinson, Jr.

"In recent years, Physician and layman alike have become enamored of the sophisticated, sonorous syllables of the word 'Ethics.' They have rung bells, mouthed platitudes and pontificated endlessly about this status symbol catchphrase, particularly as it applied to the medical profession. These orators have swept themselves and often their audiences up into the clouds with the emotionally charged effluvia with which they cloak the already dogmatic authority that enshrouds the term itself. Seldom, indeed, have they shaken themselves free of this mysticism long enough to examine carefully the principle of Ethics and what it entails—or to establish the basic structure and anatomy of this most important subject. And so, because the term 'Medical Ethics' has been bandied about indiscriminately by physicians, patients, lawyers, social reformers, news analysts, insurance companies and government officials. there has resulted an almost impenetrable cloud of confusion obscuring factual data and serving everyone's purpose, but no one's interest.

"Perhaps, then, the logical place to start an examination of the subject is with the basic structure, the fundamental purpose, of the ethic itself. What is the anatomy or the essence of ethics as we can extract it from the Oath of Hippocrates, the Code of Hammurabi, the Law of Maimonides, or any of the other historical formulations that represent efforts to give expression to a set of guiding principles for our profession? What are they, and what were their origins? In essence, they represent the broad principles of conduct—the set of values, the moral duties and obligations of the individual physician and of the profession as a whole. They were promulgated by philosophers—not policemen—and they represent the responsibility owed each of our patients, and owed society in general, by all of us who make any claim to the

(Continued on Page 863)



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Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
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word 'Physician.' They stem from the recognition of the fact that, because of our training and knowledge, because of the nature of the application of our abilities and because of our peculiarly close and confidential relationship with our patients, we have unlimited opportunity for the exploitation of the layman through the abuse or betrayal of his confidence and trust—witness the ever-present charlatan who, capitalizing on this position of trust, engages in a fraudulent confidence game as a means of livelihood. The ancients realized that any Physician or medical counselor must be dedicated, sincere and intensely aware of his opportunity for influencing patients in a selfish manner, inimical to their own best interests. Today we must be aware of the temptation inherent in a posture of omniscience and omnipotence so often proffered the Physician by his patient, as well as of the necessity for humility and the rejection of any broad spectrum powers with which his profession may endow him.

"These are the reasons for the various principles of Ethics and the safeguards which they attempt to insure; emphasizing that the physician shall be neither judge nor jury—neither demigod nor deity—but that he shall retain at all costs the humble dedication of his unflagging efforts and talents to the best interests of his only raison d'etre—the patient.

"Philosophically, ethics—or principles of ethics—must be considered a relative, not an absolute, value. It must be derived from a consideration of the end-result of actions or situations which produce good, or relatively more good than harm. Obviously, many situations and actions are capable of leading to a good, a pleasing, a healthy result, at times—and a harmful, unpleasant and unhealthy result under other circumstances. Thus, generalizations must be carefully made and must avoid the tendency to which we are all prone, of attempting to specifically delineate and legislate rigid or specific rules and actions, rather than concerning ourselves with individual integrity, purpose and motivation. Since this is so, it would seem to me that the only person competent to understand, to evaluate and to implement the ethics of Medicine must be one who, by education, training and familiarity with the history, the ideals and the daily life of the physician himself, can view this entire subject from the inside out, analyzing motives and judging results upon both patient and physician, and upon their very important interrelationship.

"Our profession is unique—historically, as well as in the self-imposed demands of intellectual achievement—dedication—and ethical behavior. We—and we a l o n e—are charged with the responsibility of keeping it so, so that it may continue to serve the best interests of all our patients. Only exemplary conduct will insure the continuation of this status as a profession. To transgress the law brings punitive measures—to transgress one's principles of ethics brings dishonor.

"Ethics is a relative—not an absolute—subject, transcending legal restrictions and concerning itself with the direction, motivations and the overall end-results of a basic philosophy and code of conduct considered in the broadest possible sense. It is not—or should not be—concerned with a set of specific regulatory mandates prejudging separate individual actions—and finally, it is not a fit subject for consideration by those uninitiated in the complexities of its gross and histological anatomy."



E. Bryce Robinson, Jr., M. D.,
President, The Medical Association of the State of Alabama

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The Woman's Auxiliary

Next to July, which contains the birthday of our Nation, the month of February fires the patriotism of Americans more than any other. Two of America's greatest men were born during this month—George Washington, who helped to give us a democracy based upon spiritual values and dignity of the individual, and Abraham Lincoln, who helped develop and preserve it.

It was faith and devotion to the cause of liberty that sustained George Washington through long years of war, months of controversy as he presided over the Constitutional Convention, and as the first president of a struggling new nation.

It was faith and devotion to the cause of freedom that guided and sustained Abraham Lincoln in his courage and determination to keep this nation united and free.

The stories of sacrifice and devotion of these two great men are well known to all of us, and at this troubled time in our Nation's history it is well that we ponder the heritage received from them as we pause to celebrate their birthdays.

During the past few years many have interpreted freedom to mean freedom from responsibility. As a result, many freedoms we once enjoyed have been taken away. The medical profession is well aware of their freedoms lost through expanding government health programs. Today we need to realize, as never before, there is no such thing as "free" freedom. Each of us must pay for it by meeting our responsibilities and discharging our duties to it.

Gordon Graham said, "There are two kinds of discontent in this world; the discontent that works and the discontent that wrings its hands. The first gets what it wants and the second loses what it has. There is no cure for the first but success; and there is no cure at all for the second."

As I have visited with your wives in the County Auxiliaries I have found them at work. They are working together as a group and with other organizations to improve their community and to help preserve the health and happiness of their neighbors.

Countless hours have been given to help the United Fund, Crippled Children's Clinics, the Salvation Army, Boy and Girl Scouts, the Heart Fund, the Red Cross and many others. Many have worked with their County Health Department in immunization clinics, preschool clinics and diabetic detection programs. One county sponsored an antique show and presented the Family Court Shelter $2,634 for needed repairs and additions to the home for abandoned and neglected children. Another purchased a new piano and song books for their County Nursing Home.

Everywhere members of the Woman's Auxiliary are realizing the importance of keeping informed on the political issues of their community, state and nation. They are realizing the importance of casting their votes in ALL elections and in speaking up for their beliefs.

This month, we invite you to join with us as we celebrate the birthdays of these two great men with prayers and a rededication of our lives and efforts to the preservation and promotion of freedom in Alabama, America and throughout the world.

Kay Guin

Mrs. James C. Guin, Jr.
President



To Set The Record Straight

If there is a calculated effort afoot to denigrate the medical profession, no better evidence could be desired than recent newspaper allegations that 1200 California physicians had "milked" that state's Title XIX program by charging exorbitant sums of money for treating their indigent patients.

Since this libelous article was first published on August 18 by the San Francisco Examiner it has been repeated countless times by press, radio and television throughout the nation.

The California Medical Association deserves credit for setting the record straight. The reporter who wrote the original article made the simple and unexplainable mistake of confusing 1200 computer vendor units with 1200 individual practitioners. Public retractions have been made, but unfortunately they have not received the front page headlines given the initial charge.

Here are the facts as stated by the California Medical Association:

"It has been charged 'That half of the $167 million paid out in physicians fees by Medi-Cal during the first 16 months of its operation went to only 1200 doctors—an average of nearly $70,000 each—Carel Mulder, director of the Office of Health Care Services, Medi-Cal administrators, said today'. (San Francisco Examiner, August 18, 1967, story written by George Dusheck)

"To set the record straight, the facts are that during the first *18* months of the program the top paid 1200 *physician vendor units* (a vendor unit is a computer code which may designate a single practitioner or many practitioners formed into partnerships, group practice or closed panel arrangements) which represents over *2,328 individual* practicing physicians were paid *$49 million* not the reported $83.5 million.

"Out of the top paid 1200 vendor units of *all types* of provider services, only 593 were physician units (both solo, clinics, large groups and partnerships) while *607* consisted of other para-medical personnel (both individual and chain dentists, pharmacists, opticians, ambulance, hearing aid dealers and suppliers of medical equipment).

"The *average* payment made to these top paid 2,328 individual physicians for the first year of the program was only *$14,300*. Less than four per cent of all 80,000 providers of services participating in the program received *$20,000 or more* during the first *18* months of the program. Only *44* individual physicians received over $80,000 during the first *18* months (or approximately $4,500 gross per months out of which must come overhead and employee salaries).

"Physician fees for the first 15 months (March 1966-June 1967) of the Medi-Cal program totaled 19.1 per cent of the total expenditures while hospitals totaled 30.8 per cent and nursing homes 20.3 per cent."

(Continued on Page 870)



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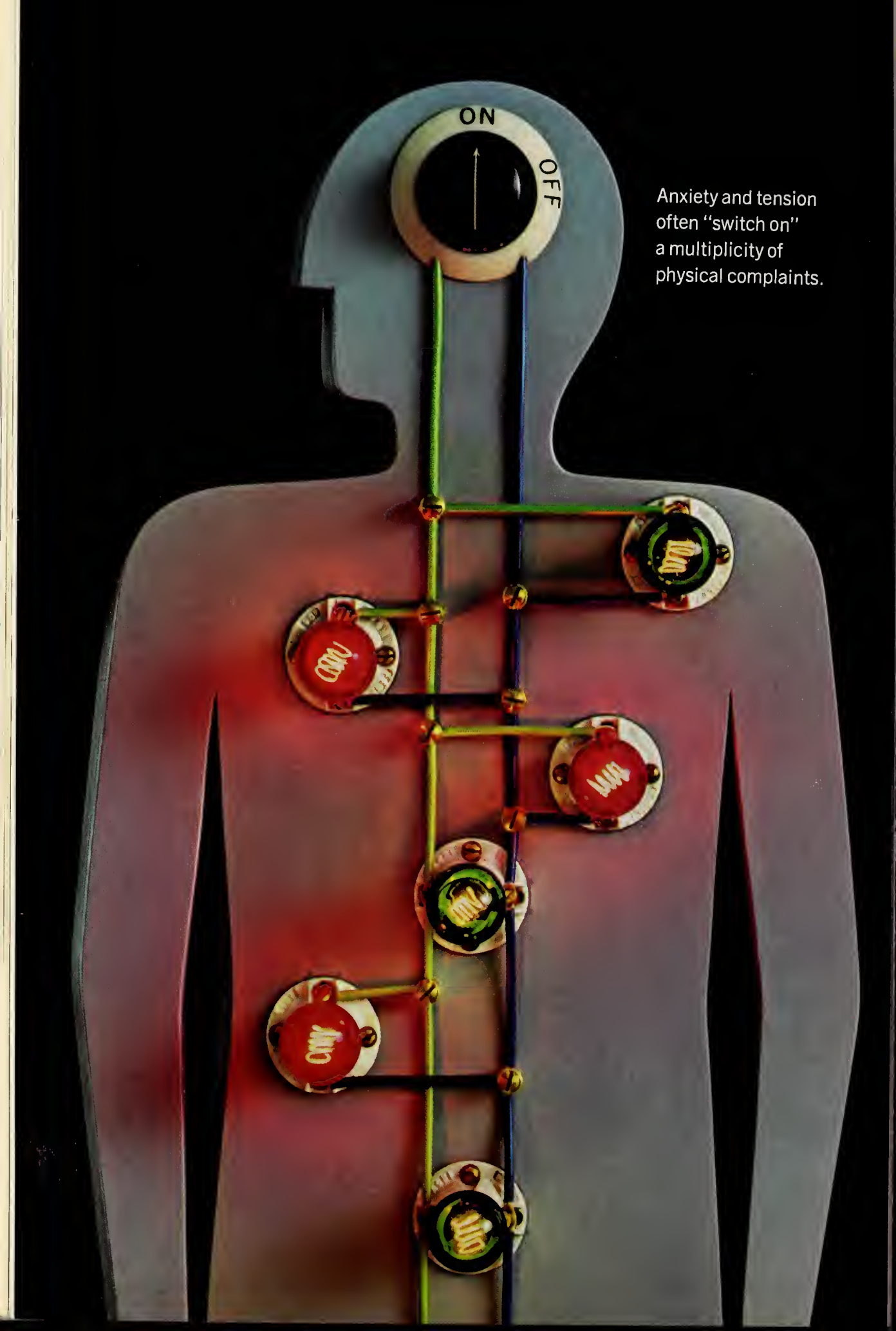
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Two salient features seem to set Tybatran somewhat apart from certain other commonly used tranquilizers.

1. Tybatran often proves more effective than meprobamate and chlordiazepoxide. In one study,[4] severe anxiety responded more effectively to tybamate than to meprobamate; in another,[8] symptom-response superiority of tybamate over chlordiazepoxide was marked at statistically significant levels of confidence.

2. Tybatran appears to be less sedating than other widely used tranquilizers. Side reactions are relatively infrequent; when they do occur, they may take the form of drowsiness, although insomnia, ataxia and other adverse effects have been reported. Nevertheless, Tybatran impresses many clinicians by its comparative lack of undesirable sedative action.[3,6,12,13] (If drowsiness or vertigo is present, activities requiring optimal alertness should be avoided.)

For patients in whom anxiety is manifested in any of a multiplicity of physical complaints, Tybatran deserves a clinical trial. These are the challenging patients, those with recurrent, persistent, ever-changing symptoms for which there is no clinical or laboratory evidence of organic disease.

Usual adult dose: one or two 250 mg. capsules 3 or 4 times daily. Adjust to suit individual requirements.

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Prescribing Information

Dosage and administration. The suggested adult dose of Tybatran (tybamate) is one or two 250 mg. capsules three or four times daily. Dosage should be adjusted to suit individual requirements. While clinical experience with Tybatran (tybamate) in children has been very limited to date, the recommended daily dosage for children 6 to 12 years old is 20 to 35 mg./kg. body weight, in three or four equally divided doses. Dosage should be adjusted to suit individual requirements. Until further clinical experience is obtained, administration of Tybatran (tybamate) to children under 6 years of age is not recommended. Daily doses larger than 3000 mg. are not recommended, although in a few instances doses in excess of this figure have been administered. Tybatran (tybamate) is also available in 350 mg. capsules, for convenience in dosage adjustment, e.g., one capsule three times daily and two at bedtime.

Contraindications. Tybatran (tybamate) should not be administered to patients known to be hypersensitive to the drug. Since no studies have been done with this drug in human pregnancy, it should not be used in pregnancy unless the potential benefit outweighs the risk.

Warnings. Simultaneous administration to psychotic patients of tybamate with phenothiazines and other central nervous system depressants has in a few instances been associated with the occurrence of grand mal or petit mal seizures. Seizures have been reported with administration of phenothiazines alone, but not with administration of tybamate alone; nevertheless, tybamate should be used cautiously in individuals who are receiving other central nervous system depressants or have a history of convulsive seizures. Also, it should be borne in mind that simultaneous administration of tybamate with alcohol or with other psychotropic agents, particularly phenothiazines or monoamine oxidase inhibitors, which are known to potentiate the action of other drugs, may result in additive actions.

Precautions. There has been no evidence to date of the development of habituation or addiction. Investigators have not observed excessive self-medication or any withdrawal symptoms with use of Tybatran (tybamate), but the latter should be kept in mind with cessation of the drug after prolonged use. Because of the occurrence of

Prescribing information continued on next page.

(pronounced TYE-buh-tran)

Tybatran™
brand of tybamate

a tranquilizer with particular usefulness in functional disorders

Prescribing information continued from preceding page.

withdrawal symptoms or exacerbation of presenting symptoms upon rapid withdrawal of other agents of this type, abrupt withdrawal of Tybatran (tybamate) should be avoided. Tybamate, like other psychotherapeutic agents, should be used with caution in addiction-prone individuals. Should symptoms of hypersensitivity occur, administration should be discontinued at once and appropriate symptomatic treatment initiated. Operation of motor vehicles or machinery or other activities requiring optimal mental alertness should be avoided if drowsiness or vertigo is present. As with any new drug, Tybatran (tybamate), should be used with caution in patients with a history of drug allergies, blood dyscrasias, and hepatic or renal disease; and prolonged and/or high doses of tybamate should be accompanied by periodic measurements of hepatic, hematopoietic, and renal function.

Adverse reactions. While these have only rarely required discontinuation of the drug, the most frequently encountered reactions have included drowsiness, dizziness, nausea, insomnia, euphoria. The drug was discontinued in one child because of a possible drug-induced urticaria, and skin rash and pruritus have been encountered in a few other patients. In a few patients, effects suggesting excessive stimulation such as hyperactivity, fidgetiness, flushing, and tachycardia have been encountered. Other reported side effects recorded only a few times to date have included ataxia, unsteadiness, confusion, feeling of unreality, "panic reaction," fatigue, headache, paresthesias, vertigo, gastrointestinal disturbances, glossitis and dry mouth. Grand mal or petit mal seizures have been reported in a few hospitalized psychotic patients to whom tybamate (up to 6000 mg. daily), phenothiazines, and other psychotropic agents were administered simultaneously. Convulsive seizures have not been reported with the use of tybamate alone.

Until clinical experience has accumulated with this drug, inasmuch as tybamate is related to meprobamate, the physician should be cautious about the possibility of rare, serious adverse reactions such as may be encountered with the latter drug. Should excessive doses of tybamate be ingested, it is recommended that any drug remaining in the stomach be removed and symptomatic therapy, including central stimulants, be used as necessary.

Supply. Tybatran (tybamate) is available in green, sealed capsules of three strengths: 350 mg., 250 mg., and 125 mg. Each strength is supplied in bottles of 100 and 500.

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EDITORIAL COMMENT

(Continued from Page 866)

Chiropractic: 2nd Degree Murder

Organized medicine (and the public health) won a double-barrelled triumph over the chiropractors in the first session of the 90th Congress, but the well-organized practitioners of that cult are certain to react with an even stronger push in 1968.

Thanks largely to the determined efforts of organized medicine, chiropractic coverage was excluded from H. R. 12080, the Social Security Amendments of 1967.

But of even greater significance was the inclusion of a section in the Amendments which requires the Secretary of Health, Education and Welfare to "study the need for, and to make recommendations concerning, the extension of coverage under the supplementary medical insurance program to the services of additional types of personnel who engage in the independent practice of furnishing health services."

Dispatches from the AMA indicate that this provision was aimed particularly at chiropractic. It is hardly necessary to point out the potential to medicine and to the health of the people if such a study resulted in a negative report on chiropractic, which it surely would if objective.

It seems most probable that the chiropractors will make every effort to have this proposed study, Section 141 of the bill, deleted in 1968. Public exposure of the frauds they perpetrate on the people in the name of health care is the one thing chiropractors do not want.

The congressional setback came at an inopportune time for chiropractors. In mid-December, 1967, they had been jolted by an unprecedented legal case in California where a member of their cult was found guilty of second degree murder in the death of an eight-year-old girl.

Marvin Phillips, the chiropractor, had persuaded the parents of the child that through manipulation he could cure her of a malig-

nant eye tumor. The decision, a first of its kind in legal history, was summed up well by the prosecuting district attorney:

"The important net effect of this is that a quack—a person not qualified to practice medicine and surgery—can be liable for murder if he interferes with proper medical treatment that could prolong or save life, or if he gives fraudulent treatment knowing that he can not cure it all the time."

Closer to home, the chiropractors have been conspicuously inactive on the legislative scene in Alabama for more than a year. Not since the summer of 1966, when they were badly whipped in an effort to change the state licensure law, have they been heard from.

But it seems likely another push will come in the next session of the Alabama Legislature, and most probably it will be another attempt to change the licensure procedure in the state. The present requirement that a chiropractor pass the Basic Science examination in Alabama has had a stifling effect. Only one chiropractor has passed the test in the past five years.

Legislation permitting a chiropractor who has passed an examination given by the National Board of Chiropractic Examiners to practice in Alabama will probably be offered again.

It must be stopped. It can be stopped by a united effort from organized medicine in Alabama.

Where Will It All End?

Transplant of the human heart is truly a major milestone in the history of surgery. Once the recipient can be kept alive—and that time may come sooner than most anticipate—medicine will have created another knotty problem for the human race, that of ethical, moral, religious and legal control of organ transplant. Already questions are arising and it has been asked whether heart transplant is legal in this country.

Surely there will be many other attempts at organ transplant in centers all over the world. Why not a brain transplant? Why not multiple organ transplants in the same individual so as to really perk up the old wreck? Where will the healthy organs (hearts, livers, kidneys, etc.) come from? Will there be a black market? Will the organs have to be government inspected? Will the best young hearts go to the highest bidder, while ordinary folks must take lesser models? Perhaps living and not living or death had better be redefined.

That heart failure is not an acceptable cause of death is learned by every young reporter, attorney and medical student. Heart failure is what gets them all. If so, then when the donor heart beats in the recipient's body, was the donor truly deceased? Perhaps an organ transplant might have saved the donor. Death, then, must involve something more than just "heart failure." There must be central nervous systems failure as well.

Things were certainly less complicated when Dr. Brinkley was transplanting goat glands or monkey glands earlier this century. Apparently he had some satisfied customers and it apparently was his advertising rather than his surgery that forced him to operate out of Mexico. It would be nice if healthy hearts could be raised like goat glands.

Why should a human want an organ transplant? The answer seems obviously either to stay alive a little longer or to regain something lost, or both. There is the calculated risk inherent in all surgery and especially in organ transplants. There might be a calculated risk in staying alive. The chaplains aboard the stricken ship gave up their life jackets to the young soldiers. Perhaps this bit of World War II history should serve as a stopping point for now in this discussion.

People Demanding Medical Attention

Montgomery has recently been the arena for a medical controversy. This one was over emergency care and emergency room services. The hospitals issued the challenge. The County Medical Society, through diligent committee action, attempted to effect a settlement. The city and county governing bodies became the first apparent adversaries. Statements and releases appeared like little multicolored sparks from the various camps and were caught up by the press which by their release sold tickets, so-to-speak, to the arena. With each block of tickets went sufficient rose-treated eye shades so that most spectators were pleased to observe their preconceived villain or villains and thus preconceived hero or heroes.

The arena was hardly half filled before it was apparent that the hospitals were not only not united but were flying at one another. The medical society was not united. The politicians were playing it cool as politicians. The press was still selling tickets. The public was buying; and, like an honest cock fight, the matches had moved to the pecking pits.

All of this controversy had its roots in the past. The citizenry of Montgomery had repeatedly voted down efforts to establish a city-county hospital. The County Board of Revenue and the City Commission could never find adequate funds to care for the treatment and hospitalization of the indigent. One hospital believed that it and its staff had been and were doing the bulk of the charity and emergency work and that the hospital could no longer afford the financial loss imposed upon it by the continuous operation of an emergency room.

At this writing there is a temporary arrangement. Emergency room rotates daily between the major hospitals. Time will determine just how effective the system will be. In the meanwhile the blame should be placed squarely where it belongs. First, it belongs on the doctors who, by not uniting and finding a solution, had most to lose—their image and public relations. Second, it belongs on the hospitals for being selfish. Third, it belongs on the politicians for being afraid of the selfish segment of the electorate. Finally, it belongs on every citizen in the community, for only by concerted action can a modern city the size of Montgomery provide adequate care to all its people.

All over Alabama and all over the Nation communities have similar problems to those in Montgomery. People are demanding more and more medical attention. It is a part of the overall revolution. Anything that anybody else has or might have is called a right by the fomenters of strife. Thinking men of good will must combat these ideas and ideologies, and members of the medical profession must be leaders in the fight.

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Use cautiously in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

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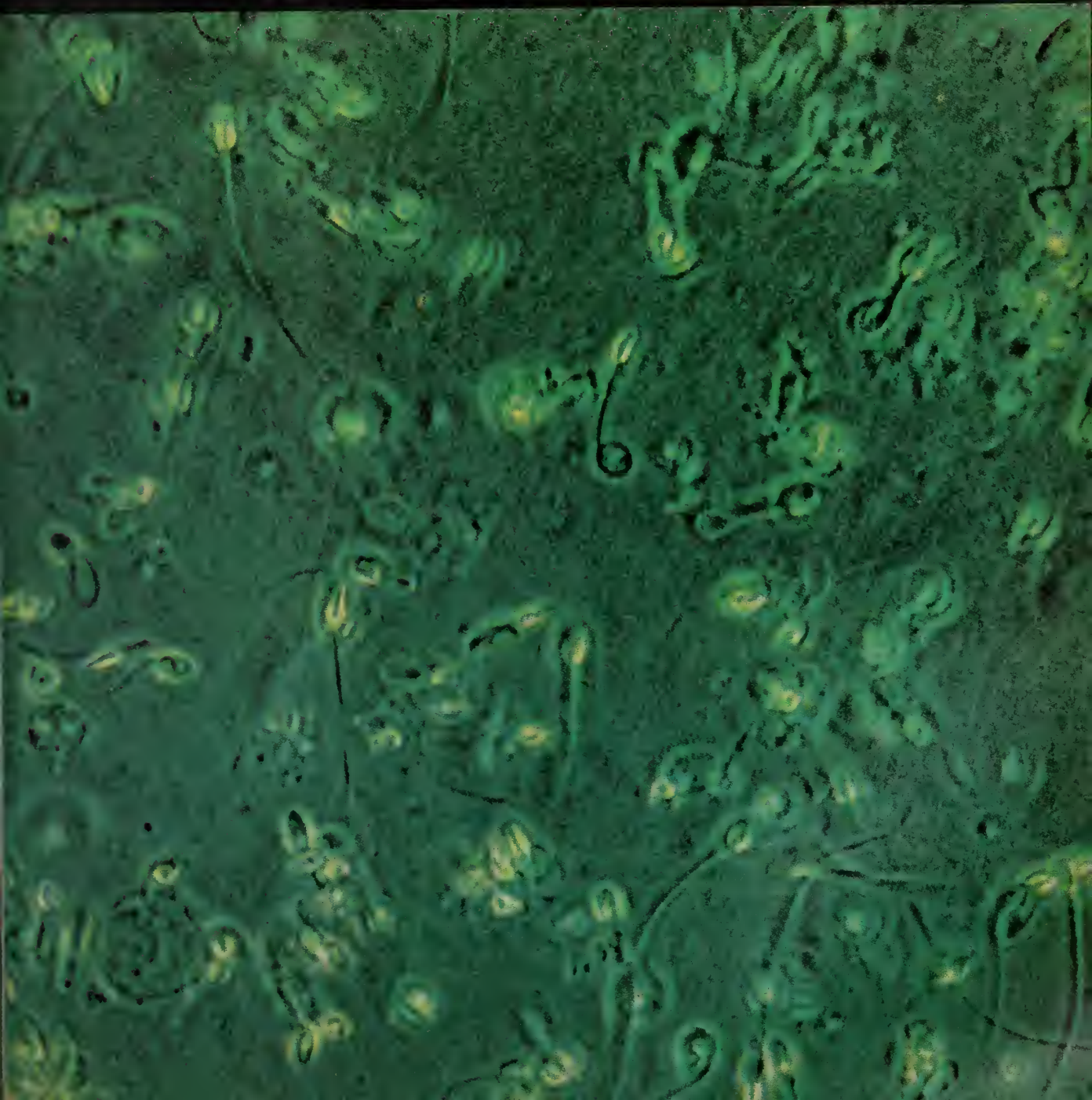
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(Continued on Page 885)

When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

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Turn page for contraindications, precautions and side effects.



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What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of NORINYL-1 (norethindrone 1 mg. with mestranol 0.05 mg.) in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with NORINYL-1. Therefore, if such tests are abnormal in a patient taking NORINYL-1 it is recommended that they be repeated after the drug has been withdrawn for two months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibromyomata may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. 5. NORINYL-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, and as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged NORINYL-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving NORINYL-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. 11. Because of the effects of estrogens on epiphyseal closure, NORINYL-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with NORINYL-1 may mask the onset of the climacteric. 13. The pathologist should be advised of NORINYL-1 therapy when relevant specimens are submitted.

Side effects observed in patients receiving oral contraceptives: The following adverse reactions have been observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weigh (increase or decrease), changes in cervical erosion and cervical secretion suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression.

Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousnes dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching.

The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has been neither established nor disproved): thrombophlebitis, pulmonar embolism, neuro-ocular lesions.

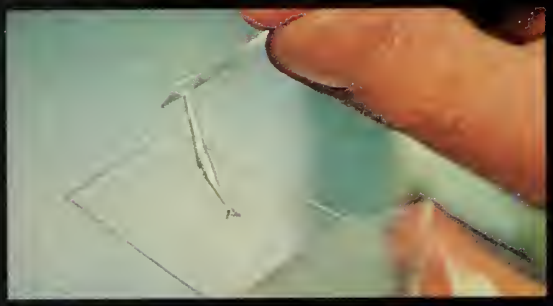
The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, Factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

norethindrone — an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF

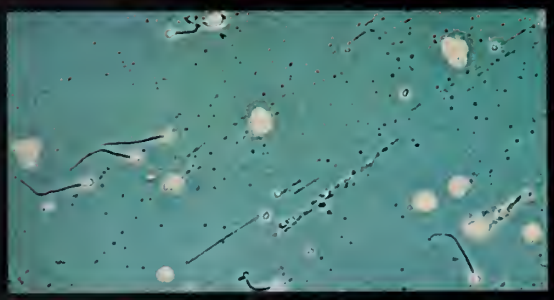
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

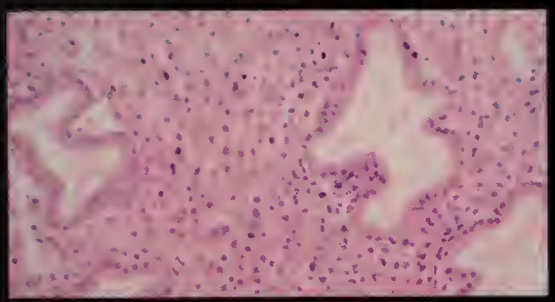
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.



Spermatozoa appear healthy, active, freemoving.

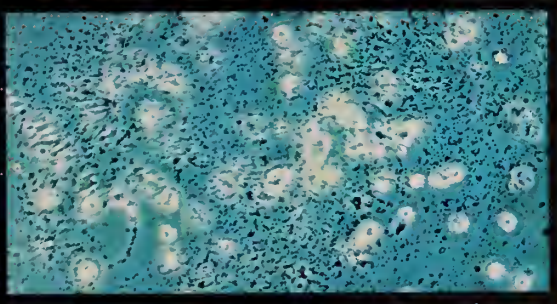


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

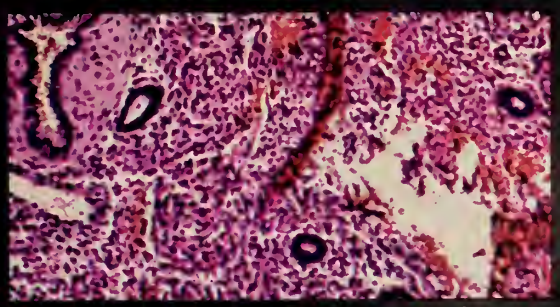
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

Norinyl®-1 tablets
(norethindrone 1mg. & mestranol 0.05mg.)

- new low dose of time-proved ingredients
- established norethindrone/mestranol ratio
- lower patient cost

An uncommon steroid for common inflammatory dermatoses

In everyday topical steroid therapy, Synalar produces rapid resolution of inflammation and itching in steroid-responsive dermatoses—and at relatively low cost to the patient.

Advanced molecular design enhances potency

Synalar combines the advantage of earlier corticosteroid compounds with unique structural innovations. As a result, preparations of Synalar 0.01% and Synalar 0.025% have been reported to be more potent topically and significantly more effective than hydrocortisone 1.0%. The unique fluocinolone acetonide molecule provides one of the most useful topical corticosteroids for everyday practice.

Impressive clinical results in a wide range of dermatologic problems

The clinical efficacy of Synalar has been extensively documented in the world literature. Commonly encountered diseases such as allergic and contact dermatitis, eczematous and seborrheic dermatitis, and neurodermatitis respond rapidly to Synalar, often where previous therapy with other topical corticosteroids has failed.

Low patient cost for wider usefulness

With Synalar, a high degree of efficacy does not mean high price. And—a small quantity goes a long way. Thus, your patients can often obtain the "economy" of a hydrocortisone preparation with the proved efficacy of a potent, truly advanced steroid.

Synalar®
fluocinolone acetonide





Turn page for contraindications, precautions and side effects

For everyday topical steroid therapy

Synalar® 0.01%

fluocinolone acetonide provides economy in two practical dosage forms

For general use, the most economical and widely applicable concentration of Synalar is 0.01% Cream in a water-washable, vanishing cream base. Synalar Solution 0.01% is especially valuable in dermatoses involving moist, intertriginous areas or hairy sites where creams and ointments do not spread or penetrate readily. Synalar Solution is a unique dosage form—clear, nongreasy, cosmetically elegant.

Product Information

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. *Precautions:* Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. *Side Effects:* Side effects are uncommon with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. In such cases the agent should be discontinued and appropriate measures taken. *Availability:* Synalar (fluocinolone acetonide) Cream 0.025%—5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01%—15, 45 and 60 Gm. tubes and 120 Gm. jars. Solution 0.01%—20 and 60 cc. plastic squeeze bottles. Ointment 0.025%—15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream—5, 15 and 60 Gm. tubes.

fluocinolone acetonide — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.





"Yes, Doctor, the pain is gone."

'EMPIRIN'® COMPOUND with CODEINE PHOSPHATE gr. 1/2 No. 3

Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

■ Despite introduction of synthetic substitutes, efficacy of 'Empirin' Compound with Codeine remains unchallenged.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.


on call...
Keflin®
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(Continued from Page 876)

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2404 Forest Road

Health Careers

Mrs. Gene Qualls Sheffield
110 Kentucky Avenue

International Health

Mrs. Eugene H. Bradley Centre
Box 100

Legislation

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2138 College Street

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1612 Dearing Place

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1504 Cherokee Lane, S. E.

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62 Sherwood Drive

Program

Mrs. J. Frank Trucks Birmingham
3830 Redmont Road

Radio, Television, Movies

Mrs. William J. Rosser Birmingham
2721 Hanover Circle

Rural Health

Mrs. J. D. Rayfield Sylacauga
105 Walnut Road

Mrs. Charles L. Camp, Co-Chmn. Sylacauga
206 S. Elm Avenue

WAMASA NEWS

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1552 College Court

Woman's Auxiliary to the Student AMA

Mrs. A. Lamar Miller Birmingham
709 Belmont Road

Yearbook

Mrs. William D. Anderson Tuscaloosa
30 Guilds Woods

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3609 Ridgeview Drive

Mrs. John B. Isbell, III Fort Payne
Route 2

Mrs. Peter Trice Tuscaloosa
4 Fairmont Woods

Mrs. C. N. Mathews Florala

Mrs. Ira B. Patton, Jr. Oneonta
412 2nd Street, N.

Woman's Division of ALAPAC

Mrs. W. R. Sutton, Chairman Blountsville
Drawer B

Chairman, By-Laws Committee and Member of the Board of Directors Woman's Auxiliary to the American Medical Association

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1504 Cherokee Lane, S. E.

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2837 Southwood Road

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Mrs. Chestley Yelton Birmingham
212 Yelton Lane

Mrs. B. H. Johnson, Jr. Bessemer
1 Meadow Lane

(Continued on Page 888)



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT

(Continued from Page 885)

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1 Meadow Lane

Credentials
Mrs. J. P. Brooke Bessemer
112 Waverly Circle

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Mrs. Orville W. Clayton Birmingham
3133 Ryecroft Road
Mrs. William H. Brakefield,
Co-Chairman Birmingham
3304 Stoneridge Drive

Finance & Budget
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2561 Mountain Woods Drive

Archives & Exhibits
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3330 Crosshill Road

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1844 Cedarwood Road

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Mrs. Arthur J. Carson Birmingham
1793 Shades Crest Road

Entertainment (Skit)
Mrs. Frank C. Wilson, Jr. Birmingham
3924 Hunters Lane

Breakfasts
Mrs. S. Joseph Campbell Birmingham
233 LaParado Place

Relay House Luncheon
Mrs. Herbert F. Gaines Birmingham
1900 Laurel Road

Tea
Mrs. Thomas J. Flynn Birmingham
2117 Woodhue Circle

Dutch Treat Dinner "For Loners" (Wednesday Night)
Mrs. Milton C. Ragsdale Birmingham
3025 Woodleigh Road

Hostess for AMA Visitors
Mrs. Richard B. Shepard Birmingham
4337 Dolly Ridge Road

Hostess for SMA President
Mrs. Paul G. Reque Birmingham
801 Vestavia Lake Drive

WA-SAMA Pages
Mrs. Terry Olivet Birmingham
1681-B Valley Avenue

PROGRAM

for the

STATE CONVENTION

April 17-20, 1968

WEDNESDAY, APRIL 17, 1968

12:00-4:00 P. M.—Pre-Convention Registration—Sheraton Motor Inn Lobby—Registration Fee—$2.00

Archives and Exhibits entries accepted until deadline Thursday, April 18th at 4:00 P. M. Displays on view and received in Sheraton Motor Inn

2:30-4:30 P. M.—Pre-Convention Executive Board Meeting—Second Floor—Sheraton Motor Inn

Call to Order and Welcome—Mrs. James C. Guin, Jr.

Introduction of Special Guests

Report of President—Mrs. James C. Guin, Jr.

Report of President-Elect—Mrs. Robert K. Wilson, Sr.

Report of Treasurer—Mrs. Curtis A. Smith

Report of Finance Officer (Budget)—Mrs. Dixon Meyers

Report of Historian—Mrs. Richard A. Dillard

Report of Committee Chairmen:

AMA-ERF—Mrs. B. H. Johnson, Jr.
Archives & Exhibits—Mrs. Samuel Cohn
By-Laws (Revisions)—Mrs. John Kimmey
Community Health—Mrs. John B. Isbell, III
Disaster Preparedness & Safety—Mrs. William Noble, Sr.
Health Careers—Mrs. Gene Qualls
International Health—Mrs. Eugene Bradley
Legislation—Mrs. Fred Reynolds
Mental Health—Mrs. Morgan J. Moore
Program—Mrs. Frank Trucks
Publicity—Mrs. William D. Monroe, Sr.
Radio, Television & Movies—Mrs. William J. Rosser
Rural Health—Mrs. J. D. Rayfield
Southern Projects—Mrs. Paul G. Reque
WAMASA News—Mrs. William L. Smith
WASAMA—Mrs. A. Lamar Miller
Yearbook—Mrs. William D. Anderson

Woman's Division of ALAPAC—Mrs. W. R. Sutton

Convention Chairman—Mrs. William G. Thuss, Sr.

Adjourn

7:00 P. M.—Dutch Treat Dinner for Loners
Place to be announced

THURSDAY, APRIL 18, 1968

8:00-4:00 P. M.—Registration—Sheraton Motor Inn Lobby

Registration Fee—$2.00

7:30 A. M.—Coffee

7:45 A. M.—Breakfast and First General Session Sheraton Motor Inn—Second Floor

Call to Order—Mrs. James C. Guin, Jr.

Invocation—Mrs. J. R. Horn, Jr., Bessemer

Auxiliary Pledge—Mrs. Albert Tatum, Jr., Tuscaloosa

"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation, and ever sustain its high ideals."

Welcome—Mrs. William G. Thuss, Sr., Convention Chairman, Birmingham

Mrs. Robert W. Grady, President, Woman's Auxiliary to the Jefferson County Medical Society, Birmingham

Introduction of Guests—Mrs. Guin

Introduction of Past Presidents—Mrs. Guin

Convention Rules of Order—Mrs. John M. Chenault, Parliamentarian, Decatur

First Report of Credentials Committee—Mrs. J. P. Brooke, Bessemer

Orientation—Mrs. John M. Chenault, Decatur

Annual Report of Officers—

President—Mrs. James C. Guin, Jr.

President-Elect—Mrs. Robert K. Wilson, Sr.

(Each report must be limited to two minutes. Bell will chime when time is up.)

NORTHEAST DISTRICT—Mrs. C. L. Salter

Blount—Mrs. R. E. Murphree
Calhoun—Mrs. John R. Morris
Cherokee—Mrs. Jack Blackwell
DeKalb—Mrs. Charles A. Isbell
Etowah—Mrs. A. L. Ennis
Jackson—Mrs. I. W. Bankston
Madison—Mrs. William B. Cameron
Marshall—Mrs. C. Fred Veazey
Shelby—Mrs. Lewis Kirkland
Talladega—Mrs. Arthur F. Toole

NORTHWEST DISTRICT—Mrs. Gilder Wideman

Colbert—Mrs. Loren Gary, Jr.
Cullman—Mrs. J. G. Daves
Franklin—Mrs. Aubrey E. Terry
Jefferson-Bessemer—Mrs. Grady C. Stewart
Jefferson-Birmingham—Mrs. Robert W. Grady
Lamar—Mrs. William C. Box
Lauderdale—Mrs. John O. Hardiman
Limestone—Mrs. Stanley Hand
Marion—Mrs. Edwin W. Couch

(Continued on Page 892)

in moderate hypertension and
poorly controlled mild hypertension
(when diuretics or sedatives are inadequate, for example)



When your patients expect a lot...

like relief from hypertensive symptoms
(headache, fatigue, nervousness, palpitation or insomnia, for example)

like an up-to-date, once-a-day dosage schedule
(a schedule not unlike timed-release medication, for example)

like a daily dose of medication for peanuts
(at 10¢ a tablet, for example)

like generally well-tolerated therapy
(as described in the package insert, for example)

...give them a little
(one tablet daily)

Regroton®

chlorthalidone 50 mg., reserpine 0.25 mg.

Indications: Hypertension. **Contraindications:** History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases. **Warning:** With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue one week before electroshock therapy, and if depression or peptic ulcer occurs. *Use in pregnancy:* Regroton should be used in pregnant patients or in women of childbearing potential only when, in the judgment of a physician, its use is deemed essential to the welfare of the patients; adverse reactions (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn.
Precautions: Antihypertensive therapy with Regroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue Regroton therapy two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Regroton should be discontinued and potassium supplements given, provided the patient does not have marked oliguria. Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients. **Adverse Reactions:** The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible. **Average Dosage:** One tablet daily with breakfast. **Availability:** Pink, single-scored tablets in bottles of 100 and 1000. (B) 46-600-B
For details, see complete Prescribing Information.

Geigy Pharmaceuticals, Division of
Geigy Chemical Corporation, Ardsley, N.Y.

Geigy

(Continued from Page 889)

NORTHWEST DISTRICT (Continued)

Morgan-Lawrence—Mrs. John M. Chenault

Pickens—Mrs. James H. Gentry

Tuscaloosa-Hale—Mrs. E. C. Brock

Walker—Mrs. W. E. Birdsong

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Coffee—Mrs. James F. Stanley

Covington—Mrs. J. Paul O'Neal

Dale—Mrs. L. D. McLaughlin

Elmore-Tallapoosa—Mrs. Lawrence H. Owsley

Geneva—Mrs. Stanley W. Griffin

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SOUTHWEST DISTRICT—Mrs. G. William Wiles

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Dallas—Mrs. Robert J. Henderson

Report of Historian—Mrs. Richard A. Dillard

Report of Chairman of Woman's Division of ALAPAC—Mrs. W. R. Sutton

Report of AMA-ERF—Mrs. B. H. Johnson, Jr.

Report—President of WASAMA—Mrs. Terry Olivet

First Reading of Nominating Committee Report—Mrs. H. Price Edwards

Address by President of Woman's Auxiliary to the Southern Medical Association—Mrs. Louie H. Griffin

Announcements—Mrs. William G. Thuss, Sr.

Memorial Service—Mrs. Harvey B. Searcy

RECESS

1:00 P. M.—Luncheon honoring Mrs. Karl F. Ritter, President, Woman's Auxiliary to the American Medical Association, and Mrs. James C. Guin, Jr., President, Woman's Auxiliary to the Medical Association of the State of Alabama—The Relay House

Invocation—Mrs. Ira B. Patton, Jr.

Introduction of Guests—Mrs. James C. Guin, Jr.

Address by National President—Mrs. Karl F. Ritter

Skit

Time for shopping

6:30 P. M.—Barbecue—Carraway Methodist Hospital

Alumni Receptions

FRIDAY, APRIL 19, 1968

8:00-12:00 Noon—Registration—Sheraton Motor Inn Lobby

Registration Fee—$2.00

7:30 A. M.—Coffee

7:45 A. M.—Breakfast and Second General Session—Sheraton Motor Inn—Second Floor

Call to Order—Mrs. James C. Guin, Jr.

Invocation—Mrs. John T. Morris—Cullman

Introduction of Guests—Mrs. Guin

Second Report of Credentials Committee—Mrs. J. P. Brooke

8:00 A. M.—NEW BUSINESS

Recommendations from Executive Board—Mrs. Guin

Revisions—Mrs. John Kimmey

Presentation of Budget—Mrs. Dixon Meyers

Election of 1968-1969 Nominating Committee

Report of Nominating Committee—Mrs. H. Price Edwards

Election of Officers

Installation of Officers—Mrs. Karl F. Ritter

Presentation of President's Pin and Gavel—Mrs. Guin

Presentation of Past-President's Pin—Mrs. William G. Thuss, Sr.

Inaugural Address—Mrs. Robert K. Wilson, Sr.

Announcements—Mrs. William G. Thuss, Sr.

Archives and Exhibits Awards—Mrs. Samuel Cohn

Courtesy Resolutions—Mrs. William D. Anderson—Tuscaloosa

Adjourn Convention—Mrs. James C. Guin, Jr.

10:00-11:30 A. M.—Post-Convention Workshop—Mrs. Robert K. Wilson, Sr., Presiding

12:00 Noon-2:00 P. M.—ALAPAC Luncheon—Parliament House

Speaker—Lt. Gov. Albert Brewer

2:00 P. M.—Continuation of President's Workshop (for incoming Officers, State Chairmen, County Presidents and Presidents-Elect, and County Committee Chairmen.)—Parliament House

3:30-4:30 P. M.—Tea—Lloyd Noland Hospital wives—Birmingham Museum of Art—Honoring: Mrs. E. Bryce Robinson, Jr., Mrs. Robert W. Grady, Mrs. Grady Stewart

7:00 P. M.—Scroll and Key Dinner Dance—Parliament House

SATURDAY, APRIL 20, 1968

9:00 A. M.—Meeting with Medical Association of the State of Alabama—Parliament House

Presentation of AMA-ERF Awards

DORSEY "FLU-GRAM"

DON'T BE LULLED BY RELATIVE LACK OF FLU LAST WINTER. THIS WINTER BE PREPARED: WHEN THE COMPLAINTS ARE COUGH AND CONGESTION, YOU CAN RELIEVE THESE SYMPTOMS WITH TUSSAGESIC TABLETS. ONE TIMED-RELEASE TABLET AT MORNING, MIDAFTERNOON AND BEDTIME BRINGS UP TO 24 HOURS' RELIEF FROM TROUBLESOME COUGH AND STUFFED AND RUNNY NOSE. TUSSAGESIC IS THE FAMOUS TRIAMINIC FORMULA, PLUS THREE OTHER PROVED CONSTITUENTS. MAKES PATIENTS MORE COMFORTABLE. FAST. ASK YOUR DORSEY REPRESENTATIVE FOR SUPPLY OF STARTER SAMPLES, OR IF FLU IS ALREADY EPIDEMIC, PHONE COLLECT. SEE BELOW.

each

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Triaminic® (phenylpropanolamine hydrochloride 25 mg., pheniramine maleate 12.5 mg., pyrilamine maleate 12.5 mg.)	50 mg.
Dextromethorphan hydrobromide	30 mg.
Terpin hydrate	180 mg.
Acetaminophen	325 mg.

Dosage: Adults—1 tablet, swallowed whole to preserve timed-release feature, in morning, midafternoon and at bedtime. Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

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PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Dermatology

Age 34; University of Iowa, 1962; seeking group or associate practice. Available July 1968. LW-200

Age 30; University of North Carolina 1962; Board eligible; seeking group or associate practice. Available July 1968. LW-201

Age 42; University of Wisconsin 1964; seeking solo or associate practice. Available July 1968. LW-202

General Practice—

Age 25; Buenos Aires, 1964; seeking solo, group, industrial, associate, or institutional practice. Available: January 1968. LW-203

Age 53; Loma Linda University, 1949; American board eligible; seeking group, industrial, associate or institutional practice. LW-204

Age 41; Guys Hospital, 1959; seeking group or other practice; Available January 1968. LW-205

Age 46; Hahnemann Medical College, 1946; interested in location for associate or industrial practice (general practice and surgery.) LW-206

Age 28; University of Missouri 1965; seeking group or associate practice. Available July 1968. LW-207

Age 30; Western Reserve Medical School 1964; seeking group, industrial, associate or institutional practice. Available August 1968. LW-208

Age 34; University of Tennessee 1958; seeking solo, group, industrial, or associate practice. Available immediately. LW-209

Age 30; University of Tennessee 1965; seeking group or associate practice. Available immediately. LW-210

Age 28; Baylor University College of Medicine 1965; seeking group, associate, industrial, institutional or aviation medicine practice. Available immediately. LW-211

Internal Medicine—

Age 34; Hahnemann Medical College 1959; Board eligible, National Board; seeking solo, group, or associate practice. Available immediately. LW-212

Age 32; Albany Medical College, 1962; Board eligible; National Board; seeking solo, group, or associate practice. Available July 1968. LW-213

Age 29; State Univ. of New York at Buffalo, 1963; seeking group or institutional practice. Available July 1968. LW-214

Age 36; Georgetown Univ., 1956; Board eligible, seeking group, associate or institutional practice. LW-215

Age 34; University of Tennessee, 1958; American Board Certified, seeking group, industrial, or institutional practice. Available Spring 1968. LW-216

Obstetrics—Gynecology—

Age 31; Mississippi Medical School, 1961; seeking group or associate practice. Available June 30, 1968. LW-217

Age 29; University of Tennessee 1961; Board eligible; seeking assistant or associate practice in north or central Alabama in town of 30,000 plus population. Available July 1968. LW-218

Age 35; University of Tennessee 1958; Board eligible; seeking group or associate practice. Available August 1968. LW-219

Age 35; Medical College of Alabama 1957; seeking associate practice in town of 10,000 plus population. Available July 1968. LW-220

Age 32; Tulane University 1961; seeking group or associate practice. Available January 1968. LW-221

Ophthalmology—

Age 36; Western Reserve U. School of Medicine, 1961; Board eligible; seeking solo, group, or associate practice. Available after March 1968. LW-222

Age 32; Emory University 1961; Board eligible; seeking associate practice. Available January 1969. LW-223

Pathology—

Age 31; University of Michigan, 1961; American Board certified; Available August 1968. LW-224

Age 31; Louisiana State Univ. 1961; Certified American Board; seeking solo or associate practice. Available July 1968. LW-225

Age 33; Univ. of Tennessee 1958; Board eligible; seeking associate practice. Available January 1968. LW-226

Pediatrics—

Age 30; Medical College of Alabama, 1962; Board eligible; seeking associate or assistant practice. Available Rebruary 1968. LW-227

Age 31; Vanderbilt University 1963; Board eligible; seeking group practice. Available August 1968. LW-228

Age 28; University of Texas, Southwestern, 1963; Board eligible; seeking group or associate practice. Available September 1968. LW-229

Psychiatry—

Age 28; University of Tennessee 1963; seeking solo or associate practice in city of 100,000 plus population. LW-230

Age 33; Western Reserve University, 1961; Board eligible; seeking solo, industrial, or associate practice. LW-231

Age 43; University of Western Ontario 1957; Board eligible; National Board; seeking group practice. Available immediately. LW-232

Radiology—

Age 31; Chicago Medical College 1962; seeking group practice. Available July 1968. LW-233

Age 31; University of Illinois, 1962; Board certified; seeking solo, group, or associate practice. Available July 1968. LW-234

Age 36; University of Tennessee 1958; seeking solo, group or associate practice. Available June 1968. LW-235

Age 52; Medical College of Virginia 1943; Certified American Board; seeking group, solo, associate, or institutional practice. Available immediately. LW-236

Surgery—

Age 42; Toronto, 1950; American Board certified; seeking solo, group, industrial, associate or institutional practice. LW-237

Age 37; University of Illinois, 1960; American Board certified; seeking solo or associate practice; available July 1968. LW-238

Age 34; McGill University, 1959; seeking industrial or institutional practice. Available July 1968. LW-239

Age 31; St. Louis University 1963; Board eligible; seeking solo or associate practice. Interested in General Surgery with some General Practice. Available July 1968. LW-240

Age 33; Indiana University 1959; Board eligible; seeking group or associate practice. LW-241

Age 31; Medical College of Alabama 1961; Board eligible; National Board; seeking associate practice in town of 20,000-80,000 population. Available immediately. LW-242

Urology

Age 33; Washington University, St. Louis, 1964; seeking associate, institutional or academic position. Available immediately. LW-243

Age 32; Medical College of Virginia 1961; Board eligible; seeking associate practice. Available March 1968. LW-244

Age 33; Johns Hopkins University 1960; seeking group or associate practice. Available July 1968. LW-245

Age 31; Tulane University 1961; Board eligible; Available July 1968. LW-246

Age 33; Emory University 1960; National Board, seeking group or associate practice. Available July 1968. LW-247

Physicians Wanted

General Practitioners—

For town of 3,600 population in trade area of 5,000-7,000 within 100 miles of two large cities and the Gulf Coast. 50-bed hospital located in the town. Office space available. Agricultural and expanding industrial area. Several churches and two schools. Recreational activities in the town as well as nearby—golf course, hunting and fishing. PW-136

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. One physician died recently. Hospital and nursing home in the city. PW-137

For partnership practice in clinic in town of 2,000 population in area of 10,000 population located in North-central Alabama. 40-bed hospital. PW-138

For assistant or associate in clinic located in town of 10,000 population located in Northeast Alabama. 65-bed Hill-Burton hospital. PW-139

For group practice in town of 10,000 population in North Alabama. PW-140

For town of 1,000 plus population in west-central Alabama in trade area of 20,000. Clinic available. Nearest city of approximately 70,000 population is located a distance of 17 miles. Farming, cattle, timber, and manufacturing plants are principal resources of the area. Churches, schools, and recreational advantages. PW-141

Opportunity in town of approximately 3,000 population in trade area of over 10,000 population located in South Alabama within 50 miles of Gulf Coast. Clinic available. PW-142

Opportunity for one or more doctors in rapidly expanding eastern suburb of Birmingham. Attractive brick building consisting of 10 rooms and adjacent parking facilities. PW-143

Physician needed to associate with a large industrial concern in a northern Alabama metropolitan area of over 100,000. Four physicians on staff. Starting salary $16,000-$18,000 depending on qualifications. Excellent working conditions and fringe benefits. Good advancement opportunities. PW-144

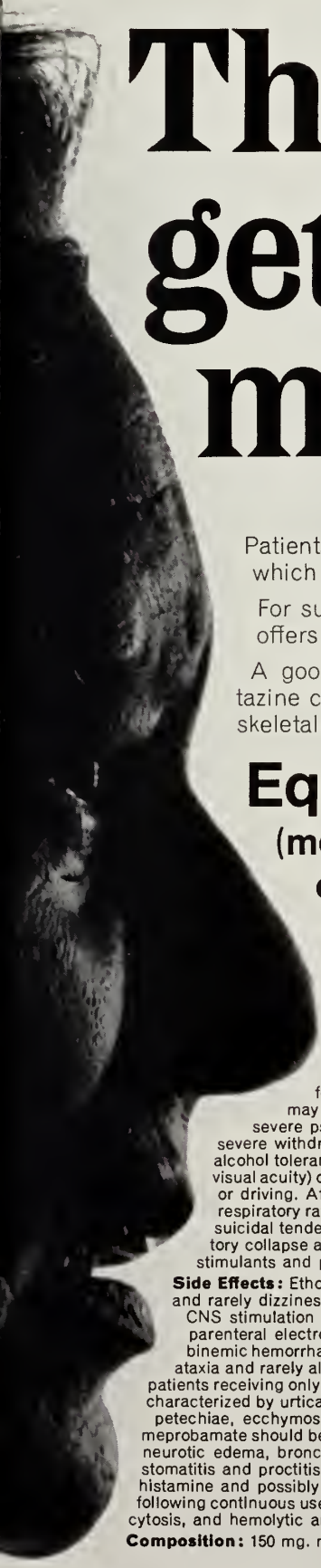
For solo practice in town of approximately 17,000 population located in east central Alabama. 48-bed general hospital. Arrangements available for office space. Excellent recreational advantages which include hunting, fishing and water sports. City owned airport. Numerous civic clubs. Excellent schools and churches. Expanding industrial and agricultural area. PW-145

Opportunity in town of approximately 2,000 population located in Northwest Alabama in trade area of 15,000 population. Spacious clinic building available rent free. Possibility for industrial position. Two hospitals with 170 beds located in adjoining city. PW-146

For town in South Alabama with 20,000 trade area population, within 10 miles of Gulf beaches and large city. Excellent hunting and fishing. Numerous industries offering stable employment for area. Furnished office available rent free. Hospital presently engaged in complete remodeling and expansion. Excellent cooperation between hospital and medical staff. PW-147

(Continued on Page 898)





This pain is getting on my nerves.

Patients in pain often experience concomitant anxiety and tension, which may add to the burden of pain.

For such patients, you may want to prescribe a preparation that offers more than simple analgesia.

A good choice is often EQUAGESIC® (meprobamate and ethoheptazine citrate with aspirin). It helps relieve pain. And anxiety. And skeletal muscle spasm as related to pain or anxiety and tension.

Equagesic® TABLETS

(meprobamate and ethoheptazine citrate with aspirin)

Wyeth®

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore it should be used in pregnant patients or women of child-bearing age only when the physician judges its use essential to the patient's welfare.

Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with immediate gastric lavage and appropriate supportive therapy (CNS stimulants and pressor amines as indicated).

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness. Overdosage may result in CNS depression (drowsiness and lightheadedness) or CNS stimulation and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]). Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically such as with epinephrine, antihistamine and possibly hydrocortisone. A few cases of leucopenia, usually transient, have been reported following continuous use. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

PHYSICIANS WANTED

(Continued from Page 895)

For town in Southwest Alabama, approximately 1,000 population in trade area of approximately 5,000 population, within 60 miles of large city of 35,000. Nearest hospital is located 18 miles away. Arrangements available for office space. Small industries and agricultural production. Civic clubs and golf course nearby. Churches and school. PW-148

Opportunity in city of 25,000 population located in Southeast Alabama within less than 100 miles of the Gulf Coast. Offices available in a medical center complex adjacent to large hospital. PW-149

For town of approximately 1,000 population in population center of 10,000 located in Southwest Alabama within 90 miles of the Gulf coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-150

For town of 2,000 population in trade area of 5,000 located in south Alabama, within 24 miles of large city of 37,000 population. Nearest hospital (50 beds) is 12 miles away. One physician presently in practice in town. Office space available. Military base, farming, and small industries afford resources. Numerous civic clubs; two schools and five churches. PW-151

General Practitioners—Surgeon—

For two towns with combined population of approximately 5,000 in West Alabama. Seeking one or more physicians; possibility of four additional physicians needed in the county. Hospital is located in each town and plans are underway for expansion of facilities. Office space available. Nearest city with 50,000 population is 30 miles. PW-152

General Practitioner—Obstetrician—

Opportunity for physician in city of 15,000-20,000 population located in Southeast Alabama in college town. Interest in surgery is also desirable. PW-153

General Practitioner—Internist—

For partnership or associate practice. Excellent location, fully equipped office in city of 12,000 population. 130-bed accredited hospital. Possibility for larger clinic group. PW-154

Surgeon—

Board qualified or Board certified surgeon for partnership in 1968 in city of approximately 40,000 population located in Southeast Alabama. PW-155

Wanted for practice leading to partnership in clinic located in city of 10,000 population in area of 30,000 population in Northwest Alabama. Starting salary of $20,000-$30,000 depending on experience and training. 75-bed accredited hospital. PW-156

Special Openings

Physician interested in Internal Medicine and Chest Diseases to provide general medical services in 184 bed Tuberculosis Hospital in North Alabama. References and experience data required in advance. U. S. citizens and fully licensed physicians given first choice. Others will be considered upon request. Salary open. PW-157

Medical Superintendent of 225 bed tuberculosis sanatorium with a building program in Birmingham. Salary and job description negotiable. Must be able to obtain Alabama license. PW-158

Respiratory Diseases Courses Scheduled

The Department of Health, Education and Welfare has scheduled a course on "Clinical Management and Control of Tuberculosis" at two locations: Battey State Hospital in Rome, Georgia, and National Jewish Hospital, in Denver, Colorado.

This course has an appeal to those physicians having an interest in respiratory diseases. Of these, tuberculosis is most important to physicians in Alabama.

Additional information may be obtained from the Director, Tuberculosis Control, State Health Department, State Office Building, Montgomery, Alabama 36104.

National Jewish Hospital

January 29-February 9, 1968

July 29-August 9, 1968

October 21-November 1, 1968

Battey State Hospital

February 26-March 8, 1968

March 25-April 5, 1968

May 6-May 17, 1968

June 17-June 28, 1968

August 19-August 30, 1968

September 23-October 4, 1968



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C. — President Johnson signed into law the social security legislation which included changes in medicare and medicaid advocated by the medical profession.

It provides for a record high minimum 13 per cent increase in cash benefits for 24 million Americans, starting in March. Beginning April 1, one dollar a month of the increase will be withheld from the checks of those participating in voluntary Plan B of medicare which covers part of physician fees and other medical services other than hospitalization.

The total premium for Plan B insurance is now $6 a month, half of which is paid by the federal government. Beginning April 1, the premium will be increased to $8, with the government paying $4 and the participant $4.

According to HEW, about 20 cents of the $1 increase was needed to cover costs which were originally underestimated. Another 25 cents would cover expected increase of use under the program. An anticipated 5 per cent increase in physician fees would account for another 25 cents, HEW said.

The social security taxable base also was increased, effective January 1, from $6,600 to $7,800. The tax rate for this year will remain the same as under the old law, 4.4 per cent on both the employee and employer and 6.4 per cent on self employed. Tax rate increases are set for subsequent years through 1987.

Changes in medicare and medicaid include:

MEDICARE

—Payment of physician fees is authorized either to the patient on the basis of an itemized bill, either unpaid or receipted as paid, or to the physician under the assignment method.

—Payment is authorized for full reasonable charges for radiological or services furnished by physicians to hospital inpatients.

—Hospital outpatient diagnostic services are transferred from the hospital insurance program (Plan A) to the supplementary medical insurance program (Plan B). The

(Next Page)

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

Lederle

330–8/6135

(Continued from Page 899)

change was designed to simplify the procedure for paying benefits for hospital outpatients.

—The requirement of physician certification of the medical necessity for admission to general hospitals and for hospital outpatient services was eliminated.

—Medicare beneficiaries are given a lifetime reserve of 60 additional days of hospital care after the 90 days covered in a spell of illness. The beneficiary must pay the first $20 per day for the additional hospitalization.

—The Secretary of HEW was directed to study and report to Congress by January 1, 1969, the effects of covering drugs under medicare and of establishing quality and cost standards for drugs provided under social security health programs.

—Services of podiatrists are authorized under medicare to the extent that a state's law permits, but routine foot care is not covered.

—Outpatient services furnished by physical therapists are authorized within certain limitations.

—The Secretary of HEW was directed to study and make recommendations of adding services of chiropractic and optometrists to Plan B.

—Payment is authorized under Plan B for diagnostic x-rays taken in a patient's home or a nursing home.

MEDICAID

—States are limited in setting eligibility income levels for federal matching purposes.

—States are given until January 1, 1970, to buy-in medicare Plan B insurance for aged medicaid beneficiaries.

—States are authorized to make direct payments to medicaid beneficiaries for physicians' and dentists' services if the beneficiary is not receiving cash assistance.

—States are permitted to select either the five basic health services, or seven out of the 14 authorized, for the medically indigent. The basic five must be provided for those receiving welfare cash benefits. The basic five are: inpatient hospital services, outpatient hospital services, other laboratory and x-ray services, skilled nursing home services and physicians' services.

—States must license administrators of nursing homes and set minimum nursing home standards if these institutions are to be eligible to participate in the medicaid program.

—States must establish methods and procedures to safeguard against unnecessary utilization of health care services and to assure that payments for such services and drugs do not exceed reasonable charges.

Under the program for Aid to Families with Dependent Children (AFDC), states now must offer birth control services to appropriate beneficiaries with acceptance on a voluntary basis. Authorizations for federal financial aid for maternal and child health programs are increased. Services of optometrists are added to child health programs.

* * *

Dr. James L. Goddard, commissioner of the Food and Drug Administration, estimated that about 300 drugs, marketed under 1,600 brand names, will be forced off the market because of ineffectiveness for treatment of medical conditions.

An evaluation of some 3,000 drugs placed on the market from 1938 to 1962 was started in June, 1966. It is being conducted by 29 panels of 200 medical and pharmaceutical specialists under the direction of the National Academy of Sciences-National Research Council. With the first panel reporting in January, the last report is due in mid-1969.

The FDA assigned the evaluation to the academy following passage of the Kefauver Drug Law in 1962. The law's main thrust was

(Continued on Page 903)

A Star-studded Meeting ---

THE MEDICAL ASSOCIATION of the STATE OF ALABAMA

107th ANNUAL MEETING
April 18-19-20, 1968

BIRMINGHAM



ALAPAC Luncheon
FRIDAY, APRIL 19
GUEST SPEAKER
LT. GOV. ALBERT BREWER



E. BRYCE ROBINSON,
PRESIDENT, MASA



MILFORD O. ROUSE, M.D.
DALLAS, TEXAS
PRESIDENT AMA



JEROME COCHRAN LECTUR
FRIDAY, APRIL 19
GUEST LECTURER
GORDON McHARDY, M. D.
NEW ORLEANS



E. L. McCAFFERTY, JR., M.D.
PRESIDENT-ELECT, MASA

• THREE SCIENTIFIC SECTIONS COVERING THE ENTIRE RANGE OF MEDICAL INTERESTS • ALUMN
REUNIONS • SCIENTIFIC AND TECHNICAL EXHIBITS • SPECIALTY GROUP MEETINGS • AWARD
LUNCHEON, THURSDAY APRIL 18, HONORING PAST PRESIDENTS; 50 YEAR CLUB MEMBERS; AWARI
WINNERS; FRATERNAL DELEGATES; DISTINGUISHED GUEST • ENTERTAINMENT FOR THE LADIES

Make Your Reservations Early!

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SUITES 40.00-43.00

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BIRMINGHAM, ALABAMA

SHERATON MOTOR INN-COLONY

Single 12.00-16.00 Double 14.00-17.00

Twin 16.00-25.00 Suites 35.00 up to 75.00

EXCELLENT BANQUET FACILITIES

For an Atmosphere of Old New Orleans

DINNER IN THE SKYLIT

Chateau Orleans Restaurant

FEATURING: NEW ORLEANS STYLE FRENCH CREOLE CUISINE

DANCING • ENTERTAINMENT

"Chateau Orleans" COCKTAIL LOUNGE

on TOP of 21st AVE. – 16th FLOOR

SHERATON MOTOR INN

GUEST HOUSE MOTOR INN

The Guest House MOTOR INN

Luxury Motel in Downtown Birmingham

Single 9.50 Double 10.50-12.50

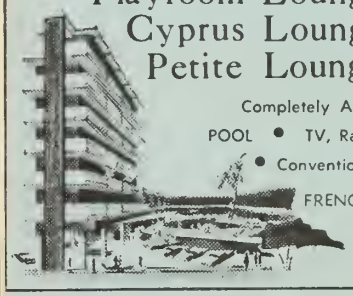
Twin 11.50-15.50 Semi-Suite 15.50-18.50

Enjoy the

Playroom Lounge - open 4 pm til 1 am

Cyprus Lounge - Downstairs

Petite Lounge - Dining Room



Completely AIR CONDITIONED • 171 Rooms

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FRENCH RESTAURANT • FREE PARKING

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THE TUTWILER HOTEL

ALABAMA'S LARGEST and FINEST

Single 10.00-15.00

Double 13.00-18.00

Twin 16.00-22.00

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The Tutwiler Hotel

2005 Fifth Ave. North

Application for room accommodations

Please print or type four choices of Hotels or Motels

1st _____ 2nd _____

3rd _____ 4th _____

___ Single Room(s) for ___ person(s). Rate $ ___ to $ ___ per room.

___ Double Room(s) for ___ person(s). Rate $ ___ to $ ___ per room.

___ Twin Room(s) for ___ person(s). Rate $ ___ to $ ___ per room.

___ 2-Room Suite for ___ person(s). Rate $ ___ to $ ___

___ Other type _____

Date Arriving Birmingham _____ hour ___ A.M. ___ P.M. ___

Leaving _____

Rooms will be occupied by: (Please attach list of additional names if you do not have sufficient space here. Also list ages of children, if any.)

Name Street Address City State Zip Code

107th

Annual Session

BIRMINGHAM

April 18-19-20, 1968

MAIL NOW!

(Continued from Page 900)

to give FDA power to pass on the efficacy as well as the safety of drugs marketed after 1962, but a provision authorized the government to review drugs already on the market.

* * *

The federal government has licensed a live, attenuated mumps virus vaccine especially recommended for adolescent and male adults who can become sterile from the relatively innocuous childhood disease.

The vaccine, developed over a five-year period by the Merck, Sharp and Dohme Research Laboratories, was not recommended for routine use in infants and young children pending development of more information in the duration of the immunity it provides.

Dr. William H. Stewart, U. S. Surgeon General, said excellent protection against naturally occurring mumps has been observed for the first year after the single-infection live vaccine.

"But limited data on natural exposure during the second year indicate continuing protection although additional observation will be required to determine the duration of immunity protection," he said.

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

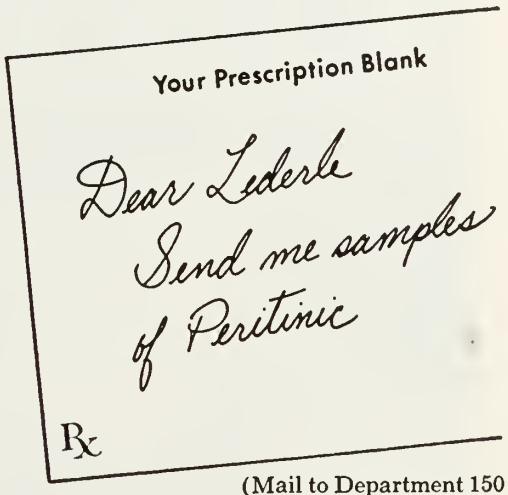
1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

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Volume 37 February, 1968 No. 8

The Conservative Management Of Ischemic Ulcers

by

R. H. Cress, M. D. and Alfons Busza, M. D.*

From November, 1964 to October, 1967, ninety-seven (97) spinal cord injury patients —66 paraplegics and 31 quadriplegics—sponsored by the Vocational Rehabilitation Administration, were admitted to the Spain Rehabilitation Center, University of Alabama Hospitals and Clinics, Birmingham, Alabama. Of these 97 spinal cord injury patients, 46 had ischemic ulcers on admission. For the purpose of this discussion the authors define ischemic ulcer as an area of infarction of the skin and underlying tissues due to pressure. We prefer the designation ischemic ulcer to bedsore or decubitus ulcer. We believe, as do Kosiak and Lindan, that pressure is the prime causative factor in the development of these lesions. As demonstrated by Lindan, the areas of the body surface subjected to the greatest pressure are the sacrum, the greater trochanters and the heels when the patient is supine and the ischial tuberosities when the patient is seated. These are the most frequent sites of ischemic ulceration especially in the spinal cord injury patient. Kosiak demonstrated in dogs that histologic changes can be noted in tissues subjected to as little pressure as 60 mm Hg for one hour.

Pressure is without a doubt the primary physical factor in the creation of ischemic ulcers. When the bed of a spinal cord injury patient is elevated 30° or when the patient sits at an angle, an angular force and compression occur over the sacral and gluteal areas. This force is transmitted to the blood vessels in the region. This shear force produces stretching, thrombosis and ultimate necrosis of the skin and subcutaneous tissues. The quadriplegic and paraplegic patients who lack motion and sensation are particularly susceptible to the ravages of pressure. This fact is borne out by the rarity with which one encounters ischemic ulcers in severely involved polio patients who lack motion but preserve sensation.

Other physical factors that cannot be forgotten are heat, moisture, shearing forces and the general hygiene of the patient. Heat

*Assistant Professors, Physical Medicine and Rehabilitation and Assistant Medical Directors, Spain Rehabilitation Center, University of Alabama Medical Center, Birmingham, Alabama.

This work was sponsored by VRA Grant No. 527-T-67 RT-19.

increases the local metabolic rate which increases the demand for oxygen in tissues whose supply of oxygen may already be impaired. An increase in moisture as a result of perspiration and incontinence of urine and feces reduces skin resistance by maceration and infection, predisposing the skin to ulceration. Friction due to sheet burns or other trauma removes epidermal protection. The general hygiene of the patient is most important. There is no substitute for cleanliness. The adequate use of soap and water in the form of a daily bath cannot be overlooked. Bathing, it must be remembered, also includes the genitalia. As well as reducing the number of skin bacteria, bathing improves skin tone and enables the nurse or attendant to spot impending pressure areas early and treat them accordingly.

Prevention of the ischemic ulcer is the hallmark of excellent nursing and medical care. It is extremely difficult to achieve and involves meticulous attention to numerous details. The physician, nurse, patient and others of the professional staff must operate as a team to preserve the patient's skin integrity. One of the team's first goals must be the education of the patient and his family in skin care and preventive maintenance technique. The details of skin care include the prevention of fecal and urine incontinence and the prompt alleviation of these when they do occur. Frequent skin inspections (three or four times a day) are essential. The patient must be taught to use a mirror to inspect his own skin for redness or any other evidence of threatened ischemic ulcer.

The importance of adequate nutrition in the form of a high protein, high vitamin diet as a part of prevention and treatment cannot be overemphasized. As with other illnesses, spinal cord injury results in a negative nitrogen balance. (Deitrick *et al.*) Hypoproteinemia produces edema which impairs the oxygen supply to tissues subjected to pressure and dependency. Poor protein intake and negative nitrogen balance can result in anemia due to the lack of the essential protein complexes necessary to manufacture hemoglobin. It has been said that no ischemic ulcer will heal when the patient's hemoglobin is 10 grams per cent or below. Transfusions may be required to remedy this situation. (Wolcott) Infections, either local (i.e., skin lesions) or systemic (i.e., urinary tract infection) increase the body's demand for protein, iron and vitamins, thus depriving the patient's skin of an essential supply of materials for its natural defenses.

Other preventive measures should include early mobilization of the patient on the tilt table, then to the wheelchair and activation in a program of physical or occupational therapy. These have favorable effects on his appetite, strength and morale. It is during this time that spinal cord injury patients should be taught to turn themselves on a regular schedule. Those who are wheelchair-bound must do a pushup for ten to fifteen seconds every 15 or 20 minutes. The wheelchair should be properly prescribed with adjustable foot rests, removable arms and a three inch foam rubber cushion with a seat board. These are only a few of the many details which must receive meticulous attention by the patient, if he is to maintain skin integrity.

Once an ischemic ulcer (2-3 cm. in diameter and 1 cm. deep) has appeared, wherever the location, it will take months to heal by the best conservative program. Treatment consists of complete removal of weight bearing on this area by whatever means. Along with this goes the dressing and care of the ulcer with all the aseptic techniques that are used for any other comparable surgical wound. Several available mechanical devices which should be more properly thought of as preventive or prophylactic measures are, nevertheless, useful in the conservative treatment of ischemic ulcers. These include: 1) sheepskins, 2) SpenceGel cushion, 3) alternating pressure pad, 4) Stryker frame, 5) Circ-O-Lectric bed and 6) water bed. All of

these have their place in the prevention and treatment of ischemic ulcers but will not replace a well-trained, well-educated nursing staff and patient.

Sheepskins, both natural and synthetic (Liberman), have many advantages. They are soft and resilient, do not wrinkle, decrease friction, and provide for evaporation by absorbing and dissipating moisture due to their spongy and airy quality. Both patients and nurses see to their cleanliness and change them frequently. We feel that a patient with threatened and/or small ischemic ulcers one centimeter or less in diameter and perhaps ½cm. deep can be placed directly on sheepskins. The patient must still be turned every two hours day and night. Sheepskin boots have been found useful in preventing ischemic ulcerations over the heel and malleoli. (Gorick)



Figure 1A
Stryker SpenceGel cushion and foam rubber mattress on hospital bed.

The Stryker flotation pad trade name "SpenceGel" consists of a viscoelastic gel useful both in the care of the bed patient with ischemic ulcers and in their prevention. The SpenceGel cushion is constructed of synthetic material having the resiliency and consistency of natural fat. When the patient lies or sits on such a device, the cushion forms a supporting sling beneath his ischial tuberosities or weight-bearing surfaces. The SpenceGel cushion may be used over a foam rubber cushion. It should not be used over a



Figure 1B
Stryker SpenceGel cushion in proper position for relieving pressure in sacral area of bed patients.

seatboard. This device has the disadvantages of expense, plus the lack of a smooth surface which makes transfer activities difficult for the spinal cord injury patient due to friction. Like the sheepskins, it too has built-in psychological factors. The expense and attractiveness of these devices create in the patient a sense of pride of ownership and a desire to keep them clean. (Fig. 1 A-C)



Figure 1C
Typical Wheelchair used for spinal cord injury patients with Stryker SpenceGel cushion removed from bed and used in chair.

Alternating air pressure mattresses and cushions for chairs (Bliss; Ackerman) consist of plastic air-filled mattresses with cells or strips usually two inches wide in two series. Each of the two series is inflated and deflated every four or five minutes by an electrically driven air pump. Different investigators (Bliss *et al.*) have varied the width of the cells from 2 inches to 6 inches, the depth to 4 inches, and the position from longitudinal to horizontal with favorable results. The alternating pressure pad is another attempt to alleviate pressure over the body surfaces. It alone will not, of course, prevent ischemic ulcers. Careful nursing, including frequent turning, if possible, is a must in the treatment of ischemic ulcers. Alternating pressure pads have the disadvantages of expense, possible mechanical failure of the pump, and the ever present threat of damage to the mattress by sharp objects, such as safety pins. (Fig. 2)



Figure 2

Alternating Pressure Mattress and accompanying pump. Air cells are arranged in longitudinal series of two. Mattress is ready for patient occupancy when covered with a sheet.

Segmental foam rubber mattresses are a useful means of relieving pressure. They are available in 36 in. x 4 in. blocks varying in length from one to two feet. The firm density is usually chosen. Blocks of foam rubber can be obtained and cut to specifications. Segmental mattresses must be well placed, and of correct size and density to lift the involved area completely off the bed. (Rossier) Single mattresses are less expensive and more readily available than some of the already mentioned devices. Their successful use is again based on skillful and meticulous nursing care. Their chief use is in patients who have ischemic ulcers on all four sides of the body or who, for some reason, cannot lie on intact areas.

Stryker frames and Circ-O-Lectric beds are less comfortable than regular beds, but are extremely useful in certain cases. They can and perhaps should be combined with segmental mattresses if ischemic ulcers are present. Their best uses are 1) to turn the extremely obese patients, 2) to reduce movement of an unstable spine or a fractured pelvis, 3) to turn a patient without disturbing cervical traction, 4) to facilitate bowel and bladder care in recumbent cases, 5) to provide stability to a post-operative flap graft to the buttocks and hips, 6) to simplify frequent changes of dressings in patients with excess drainage or extreme incontinence. The Circ-O-Lectric bed provides all of the above plus the ability to assume the seated position as well as convert to a tilt table, and thus provide several weight bearing areas. Needless to say, these devices are expensive and require a well-trained nursing staff to manipulate.

Total flotation therapy or the water bed as described by Weinstein and Davidson, as well as Harris, is manufactured commercially by the Scott Paper Company. In addition to its expense, it does, in our opinion, have several built-in problems. One of these is the tendency for a patient who has sensation and who tends to puddle gastric secretions to have esophagitis. The second one is the problem of catheter drainage which requires a siphon setup with the tip of the tubing being placed beneath the water surface. This necessitates continuous care and education on the part of the nursing service. We have also found that when the flotation units are placed on electric bed frames, there is a tendency, when the bed is neither completely raised or lowered, for the water to run toward the head of the bed, giving the patient a decided head downward tilt. One of our staff has remedied

this by construction of a wooden base for the support of the flotation unit. In spite of the expense and the mentioned disadvantages, we have found the water bed to be a most effective device for relieving body weight. The patient who is treated for an ischemic ulceration by means of total flotation therapy should remain in bed, including meals and toilet activities, and not be permitted to assume the upright or weight-bearing position on the ulcerated area until it has completely healed. We have found that the patient benefits from a blanket or a sheet and blanket placed between him and the plastic covering (bladder) of the water bed. This provides an absorbent surface beneath the patient and at the same time protects the vinyl bladder from sharp objects. (Fig. 3A and B)

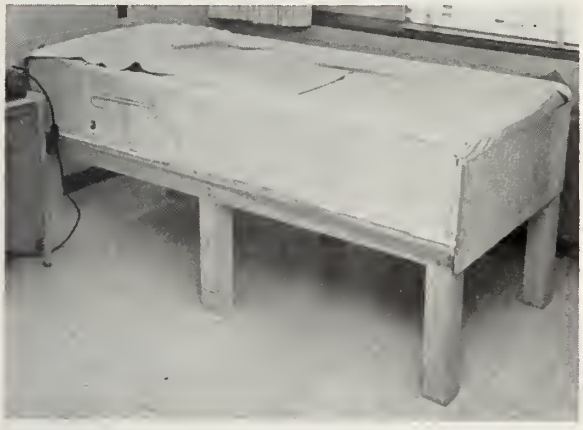


Figure 3A

Total flotation unit (water bed) placed on constructed wooden frame. Bed is ready for patient occupancy when covered with a blanket and sheet.



Figure 3B

Total flotation unit (water bed) showing air lift inflated for temporary nursing procedures requiring a rigid surface.

The key to the conservative treatment of ischemic ulcerations, in our opinion, is the debridement of necrotic material, the maintenance of as aseptic a technique as possible and the frequent turning and cleansing of the patient. If a Hubbard Tank is available, this provides an adequate means of debriding and cleansing the ulcerated area. Water at 98°-100° with mild to moderate agitation is used for about 20 minutes. An antiseptic solution, such as phisohex, may be added to the water. At this point several choices of treatment are available. If the ulceration is small, a centimeter in diameter and less than ½ cm. in depth, it may be left without a dressing, and the patient placed directly on the sheepskin and turned frequently. An ischemic ulcer of greater extent requires more attention and treatment.

After the ulcer has been cleansed, a variety of dressings can be applied. One of the most satisfactory treatments in our experience for the debridement of large necrotic ischemic ulcers has been the "sugar treatment." It consists of mixing a small amount of glycerin with granulated table sugar to form a slightly moist paste and packing this mixture into the ulcerated area. The exact theory behind the effectiveness of the use of sugar is not really known. (Kuhn; Verhonick) The sugar may act to serve as host for bacteria to feed on rather than on the tissue. Or, the sugar may act as a hydrostatic agent forming a hypertonic solution with normal tissue fluids, causing a reversal of lymphatic flow, thereby, bringing more serum and nutrient materials into the tissue to promote healing. Whatever the reason, we have found that those ulcers treated with sugar and glycerin do show an increased granulation and ten-



Figure 4A
Spinal cord injury patient with sacral and trochanteric ischemic ulcers.

dency to less infection. (Fig. 4A and B)

Other dressings that have been effective include absorbable gelatin sponge (Gelfoam), Elase, and gold-leaf treatment. The gelatin sponge is removed from its sterile wrapper and placed into the deepest portion of the ulcer. Elase ointment (fibrinolysin and desoxyribonuclease) is highly effective in the enzymatic debridement of necrotic tissues. It is put directly in the ulcer in generous amounts. It helps produce clean surfaces and supports healing. We have had only limited experience with gold-leaf treatment of ischemic ulcers. Wolf, Wheeler and Wolcott have found dramatic healing results with gold-leaf. The treatment consists of saturating the exposed tissue with 95 per cent ethyl alcohol and covering it with four layers of ordinary gold leaf, plain sheets without an adherent backing that can be purchased from a paint or an art supply store. (Fig. 4C)



Figure 4B
"Sugar treatment" for ischemic ulcers consists of packing the ulcer with a mixture of sugar and glycerin.



Figure 4C
Elase ointment is applied generously to the ischemic ulcer.

After the ulcer has been properly treated, a "Bulky McQuire Dressing" is applied to the area. This consists of packing the ulcer with



Figure 4D
Sterile 4 x 4's are placed over the treated ulcers.

iodoform or plain gauze covered with sterile 4 x 4's and sterile ABD's. Unsterile ABD's are then used to pad the entire circumference of the patient in the sacral and trochanteric areas. The pads are held in place by means of a stockinette fastened with safety pins and paper tape. This type of dressing is particularly useful in sacral and trochanteric ulcers. If properly applied, it will remain in place for a full day and protect the ulcer from additional fecal contamination. It diminishes the shear factor and permits these patients to have some sitting time. It has the disadvantage of expense. It requires two individuals to apply and it must be changed daily. (Fig. 4D-G)



Figure 4E
ABD padding is applied over bony prominences. No tape is applied to the patient.



Figure 4F
Stockinette for the "Bulky McQuire Dressing" is fastened securely with safety pins.



Figure 4G
The finished "Bulky McQuire Dressing" will allow the patient with ischemic ulcers to have some sitting time.

The individual who attempts to treat patients with ischemic ulcerations should be well aware of the skill with which the plastic surgeon can approach these problems, particularly in the paraplegic and quadriplegic patients. The indications for surgery depend upon the size and location of the ulcer, whether or not the ulcer heals with considerable fibrosis and adhesion to the bone. In all instances where a plastic surgery consultation is available, the plastic surgeon should be requested to see the patient with ischemic ulcerations and to follow him along so that if surgery is indicated, it can be performed at the appropriate time.

Summary

Ischemic ulcerations are localized areas of cellular necrosis resulting from interference with normal cell metabolism in the skin and

subcutaneous tissues by interference with the blood supply. The circulatory interference is the direct result of pressure and ultimately leads to death of the cells. Ischemic ulcerations almost inevitably will heal when pressure is removed. Their satisfactory management and prevention requires meticulous attention to details. Some preventive devices that have been found effective are sheepskins, SpenceGel cushion, alternating pressure pad, Stryker frame, Circ-O-Lectric bed and the water bed. Once an ulcer has appeared, various dressings for debridement and healing have been used: "sugar treatment," gelatin sponge, Elase ointment and gold-leaf treatment. The "Bulky McQuire Dressing" is a useful method for holding these ulcer packings in place. These devices all have their place in the prevention and treatment of ischemic ulcers. They cannot, however, replace a well-trained, well-educated nursing staff and patients.

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Attend the Third Congress on Medicine and Pharmacy February 24-25.

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Influence Of Diet Upon Nonfasting Serum Calcium: Reexamination Of The Effects Of A Relatively Low-Refined-Carbohydrate High-Protein Diet

by

E. Cheraskin, M. D., D. M. D.*

W. M. Ringsdorf, Jr., D. M. D., M. S.**

A. T. S. H. Setyaadmadja, M. D.***

and

R. A. Barrett, D. D. S.****

University of Alabama Medical Center

Birmingham, Alabama

Introduction

A recent report[1] indicated three interesting findings following the institution of a three-day relatively low-refined-carbohydrate high-protein diet in the human. First, relatively high nonfasting serum calcium levels declined. Second, relatively low serum calcium values rose. Last, the final serum calcium scores (following the three-day dietary regime) settled within a narrow range more restricted than conventional physiologic parameters. Because of the significant relationships between calcium metabolism and age[2, 3], diverse disease states (such as infection[4], endocrinopathy[5], malignancy[6], vitamin deficiency[7] and postsurgery[8]), organs (like the oral cavity[9] and eye[10]), and physiologic expressions (as electrocardiography[11]), this report is a confirmatory check on the previously described findings.

Methods

Thirty-nine presumably healthy dental students participated in this study. On Monday of a week, 10:00 A. M., nonfasting (two-hour postprandial) serum calcium[12] was determined. The subjects were then instructed to eliminate, as far as possible, refined carbohydrates from the diet as previously reported[1]. The recommendation was also made that protein intake be increased. Nonfasting, 10:00 A. M., (two-hour postprandial) serum calcium was remeasured Friday of the same week by the same technician with no

*Professor and Chairman, Department of Oral Medicine, University of Alabama Medical Center, Birmingham, Alabama.

**Associate Professor, Department of Oral Medicine, University of Alabama Medical Center, Birmingham, Alabama.

***Junior Lecturer, University of Indonesia School of Dentistry; presently Fellow of the National Heart Institute, Public Health Service.

****Presently Fellow of the National Heart Institute, Public Health Service.

knowledge of the previous findings. The raw data are listed (Table 1).

Table 1

serum calcium values before and after a relatively low-refined-carbohydrate high-protein diet

case number	age	initial score	final score	case number	age	initial score	final score
001	28	9.8	10.0	021	24	10.0	10.3
002	25	9.8	10.1	022	24	10.3	9.8
003	24	9.8	9.7	023	24	10.1	10.0
004	24	9.8	10.0	024	24	9.8	10.3
005	24	9.8	10.1	025	27	10.4	10.7
006	25	10.0	10.1	026	25	10.4	10.3
007	23	10.0	10.4	027	24	10.4	10.0
009	24	10.3	10.5	028	23	10.2	10.2
010	28	9.9	10.4	029	25	10.3	10.1
011	31	10.2	9.9	030	28	10.0	10.1
012	30	10.0	10.1	031	26	10.0	10.3
013	23	9.8	10.1	032	33	10.0	10.0
014	27	10.2	10.4	033	28	10.3	10.4
015	24	10.4	10.4	034	22	10.0	10.4
016	28	10.6	10.1	035	25	10.1	10.0
017	29	10.2	10.0	036	24	9.8	9.8
018	24	9.9	10.1	037	29	9.9	10.4
019	23	9.8	9.9	038	27	10.0	9.9
020	28	9.7	10.0	039	24	10.0	10.2
				040	29	10.1	10.0

Results

Table 2 presents the means and standard deviations for the pre- (initial) and post-dietary (final) serum calcium analysis. Although the mean values did not significantly change ($P>0.05$) during the experimental period, rather uniform trends did occur in the individual serum calcium concentrations.

When plotted graphically (Figure 1) the evidence suggests that serum calcium levels above 10.0 mg. per cent tended to decrease and those below 10.0 mg. per cent appeared to rise. This trend toward homeostasis is underscored by a significant ($P<0.001$) correlation coefficient ($r = -0.604$).

Table 2

effect of a three-day relatively low-refined-carbohydrate high-protein diet upon nonfasting serum calcium

sample size	39
initial mean score	10.05
initial standard deviation	0.23
final mean score	10.14
final standard deviation	0.22
significance of the difference of the means	$P > 0.050$
significance of the difference of the variance	$P = 0.500$
correlation of the initial score with the difference from the initial score at the second visit	-0.604
significance of the correlation coefficient	< 0.001*

*statistically significant

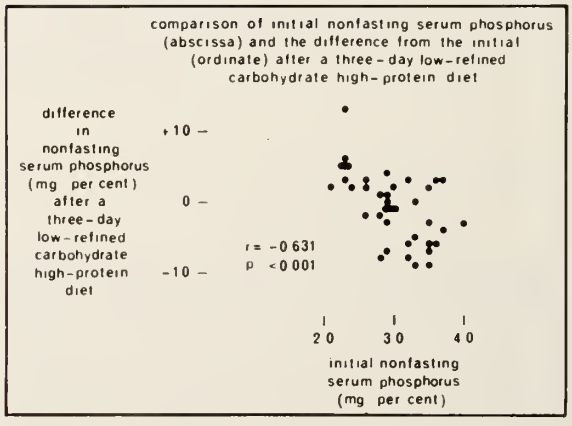


Figure 1

Discussion

The evidence from these 39 presumably healthy subjects indicates that there is a tendency for the nonfasting serum calcium to approach 10.0 mg. per cent under the conditions of a relatively high-protein low-refined-carbohydrate diet. This is underlined by the significant negative correlation. Parenthetic mention should be made that, according to conventional standards, there was no initial evidence of hyper- or hypocalcemia.

The findings in this study confirm the previously reported observations[1]. This is

particularly noteworthy since presumably healthy young men were utilized here in contrast to patients in the other report and the techniques for measuring serum calcium were different.

Two earlier reports[13, 14] suggested that the dietary regime utilized here is followed by similar changes in blood sugar and glucose. Specifically, the relatively high blood glucose and sugar values decreased, the low ones rose as in the case of serum calcium. Parenthetic mention should be made that a study of the initial blood sugar and blood glucose versus serum calcium were not significantly related ($r = +0.098$, $r = +0.097$ respectively).

Summary

A study of 39 presumably healthy dental students subjected to a relatively low-refined-carbohydrate, high-protein diet for three days revealed significant changes in nonfasting, two-hour postprandial serum calcium.

It would appear from these data that the physiologic nonfasting serum calcium (Parker method) approximates 10.0 mg. per cent. These findings in young healthy men agree with earlier reported findings in patients.

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Re-examination Of The Effects Of A Relatively Low-Refined-Carbohydrate High-Protein Diet Upon Nonfasting Serum Phosphorus

by

E. Cheraskin, M. D., D. M. D.

and

W. M. Ringsdorf, Jr., D. M. D., M. S.

Introduction

A recent report[1] indicated three interesting results following the institution of a three-day relatively high-protein, low-refined-carbohydrate diet in the human. First, elevated nonfasting serum phosphorus levels declined. Second, depressed serum phosphorus values rose. Lastly, the final serum phosphorus scores settled within a narrow range more restricted than the conventional physiologic parameters. Because phosphorus metabolism is important to host resistance and susceptibility in diverse disease states, this report was designed to be a confirmatory check on the previously described findings.

Methods

Forty presumably healthy dental students participated in this study. On Monday of a week, two-hour postprandial serum phosphorus[2] was determined at 10:00 A. M. The subjects were then instructed to eliminate refined carbohydrates (foods consisting largely of sucrose and wheat flour) from the diet. They were also given directions for increasing the protein intake. Two-hour postprandial serum phosphorus was remeasured at 10:00 A. M. on Friday of the same week by the same technician with no knowledge of the previous findings. Table 1 presents the raw data.

Department of Oral Medicine, University of Alabama Medical Center, Birmingham, Alabama.

Table 1

two-hour postprandial serum phosphorus before and after a three-day relatively low-refined-carbohydrate high-protein diet

case number	initial serum phosphorus	final serum phosphorus	difference	case number	initial serum phosphorus	final serum phosphorus	difference
001	2.3	2.9	+0.6	021	2.3	2.8	+0.5
002	3.3	2.8	−0.5	022	3.6	3.9	+0.3
003	2.6	2.4	−0.2	023	2.9	2.8	−0.1
004	2.4	2.6	+0.2	024	3.0	3.2	+0.2
005	3.6	3.0	−0.6	025	2.8	2.6	−0.2
006	3.5	2.6	−0.9	026	2.3	2.8	+0.5
007	3.2	2.4	−0.8	027	3.0	2.9	−0.1
008	2.1	2.3	+0.2	028	2.3	2.8	+0.5
009	2.9	2.8	−0.1	029	2.9	3.3	+0.4
010	2.9	2.6	−0.3	030	2.3	2.6	+0.3
011	3.5	2.8	−0.7	031	3.2	3.5	+0.3
012	2.6	2.8	+0.2	032	2.9	2.9	0.0
013	2.9	3.0	+0.1	033	2.6	2.9	+0.3
014	3.7	3.0	+0.3	034	2.8	2.9	+0.1
015	4.0	3.7	−0.3	035	2.3	3.6	+1.3
016	3.5	3.2	−0.3	036	2.9	2.2	−0.7
017	3.2	2.6	−0.6	037	2.8	2.0	−0.8
018	3.3	3.3	0.0	038	3.0	2.9	−0.1
019	3.3	2.4	−0.9	039	3.7	3.3	−0.4
020	3.5	3.7	+0.2	040	3.5	2.9	−0.6

Results

Table 2 summarizes the means and standard deviations for the pre- (initial) and post-

dietary (final) serum phosphorus analyses. Although the mean values did not significantly change ($P>0.200$) during the experimental period (Table 2), rather uniform differences did occur in the individual serum phosphorus levels.

When plotted graphically (Figure 1) the evidence suggests that serum phosphorus levels above 3.0 mg. per cent tended to decrease and those below 3.0 mg. per cent appeared to rise. This trend toward homeostasis is underscored by a significant ($P<0.001$) coefficient of correlation ($r = -0.631$).

Table 2

effect of a three-day relatively low-refined-carbohydrate high-protein diet upon nonfasting serum phosphorus

sample size	40
initial mean score	2.99
initial standard deviation	0.48
final mean score	2.89
final standard deviation	0.42
significance of the difference of the means	>0.200
significance of the difference of the variance	>0.250
correlation of the initial score with the difference from the initial score at the second visit	−0.631
significance of the correlation coefficient	<0.001

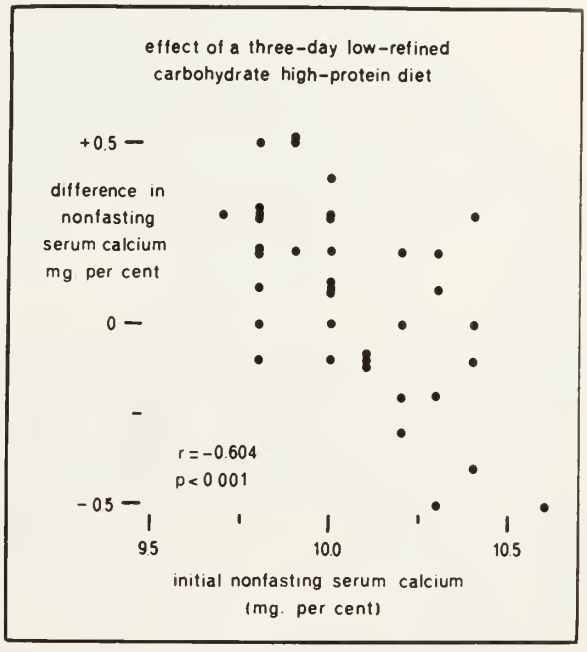


Figure 1

Discussion

The evidence from these 40 presumably healthy subjects indicates that there is a tendency for the nonfasting serum phosphorus to approach a relatively narrow range under the conditions of a relatively high-protein low-refined-carbohydrate diet. This is underlined by the significant ($P<0.001$) negative correlation ($r = -0.631$). However, according to conventional standards, there was no initial evidence of hyper- or hypophosphatemia.

The findings in this study confirm the previously reported observations[1]. This is especially noteworthy since presumably healthy young men were utilized in contrast to patients in the earlier report.

The observations made here are in parallel with the postdietary (relatively high-protein, low-refined-carbohydrate diet) changes in other biochemical parameters (e.g., blood sugar[3, 4], blood glucose[4], and serum calcium[5, 6]). Among these biochemical parameters, relatively high scores decreased while low scores rose for blood sugar in patients, blood sugar and glucose in students, and serum calcium in both patients and students.

Table 3 shows that blood sugar and blood glucose correlate ($r = +0.869$) significantly

Table 3

	blood glucose	serum calcium	serum phosphorus
blood sugar	$r = +0.869$ $P < 0.001$	$r = +0.098$ n. s.	$r = +0.256$ n. s.
blood glucose		$r = +0.097$ n. s.	$r = +0.359$ $P < 0.050$
serum calcium			$r = +0.106$ n. s.

($P<0.001$). Also blood glucose correlates ($r = +0.359$) significantly ($P<0.050$) with serum phosphorus. However, none of the other relationships proves significant.

Summary

A study of 40 presumably healthy dental students subjected to a relatively high-protein, low-refined-carbohydrate diet for three days revealed significant changes in two-hour postprandial serum phosphorus. It would appear, under these conditions, that the phosphorus level approaches 3.0 mg. per cent.

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Department Added To University's School Of Health Services Administration

The Bureau of Research and Community Services, the newest department of the University of Alabama in Birmingham's School of Health Services Administration, has recently completed the first phase of a comprehensive health survey in Morgan, Lawrence and Limestone counties of northern Alabama. A grant of $35,000 was awarded the School of Health Services Administration under Appalachia 202 for this phase of the study. The study has continued into phase two as the Bureau assists local sub-committees in the submission of projects for funding under the "Demonstration Health Facilities" section of the Appalachia legislation.

The Bureau has also assumed survey activities for Alabama's Regional Medical Programs for Heart, Cancer and Stroke. Inventory and assessment studies similar to phase one of the study in Morgan, Lawrence, and Limestone counties, will be done in a number of counties throughout the state. $64,000 have been allocated to the Bureau to initiate these activities.

Dr. Keith D. Blayney, Associate Professor, School of Health Services Administration is director of the Bureau of Research and Community Service.

PROGRESS IN OBSTETRICS-GYNECOLOGY, February 15-16, 1968: Fee $30.00—Dr. Edwin Waldrop, Course Director: For information write to Dr. Margaret S. Klapper, Director, Division of Continuing Medical Education, Medical College of Alabama, 1919 7th Ave., S., Birmingham, Alabama 35233.



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*Staphylococcus aureus

study I[1]

Results of a 1967 **in vitro—in vivo** correlation study involving 116 patients with Gram-positive coccal infections in five institutions. All patients were given TAO prior to determining the susceptibility of the offending organism.

97.0%
of the organisms were susceptible to oleandomycin*

98.0%
of the patients responded favorably to TAO® (triacetyloleandomycin)

*In some cases more than one pathogenic organism was isolated from the patient.

study II[2]

Effect of oral therapy with TAO, erythromycin, and cloxacillin on the survival time of Rhesus monkeys after intravenous inoculations of lethal doses of staphylococci, phage type 80/81. (8 monkeys in each group)

conclusion:

*Under the conditions of this study and the doses employed, it was found that

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was far superior to erythromycin, as was cloxacillin, a bactericidal agent, and of particular interest, "...bacteriostatic triacetyloleandomycin was as effective or perhaps superior to cloxacillin in preventing lethal (staphylococcal, phage type 80/81) infection."

*It should be pointed out that results obtained in an experimental study of this nature may not necessarily be directly extrapolated to the clinical situation as it pertains to man.

TAO Rx Information

INDICATIONS: Include streptococci, staphylococci, pneumococci and gonococci. Recommended for acute, severe infections where adequate sensitivity testing has demonstrated susceptibility to this antibiotic and resistance to less toxic agents. **CONTRAINDICATIONS AND PRECAUTIONS:** Not recommended for prophylaxis or in the treatment of infectious processes which may require more than ten days continuous therapy. In view of the possible hepatoxicity of this drug when therapy beyond ten days proves necessary, other less toxic agents should be used. If clinical judgement dictates continuation of therapy for longer periods, serial monitoring of liver profile is recommended, and the drug should be discontinued at the first evidence of any form of liver abnormality. When treating gonorrhea in which lesions of primary or secondary syphilis are suspected, proper diagnostic procedures, including darkfield examinations, should be followed. In other cases in which concomitant syphilis is suspected, monthly serological tests should be made for at least four months. Contraindicated in pre-existing liver disease or dysfunction, and in individuals hypersensitive to the drug. Although reactions of an allergic nature are infrequent and seldom severe, those of the anaphylactoid type have occurred on rare occasions. When used in streptococcal infections, therapy should be continued for ten days to prevent the development of rheumatic fever or glomerulonephritis. The use of antibiotics may occasionally permit overgrowth of nonsusceptible organisms. A resistant infection or superinfection requires re-evaluation of the patient's therapy. In the event such occurs with this drug the medication should be discontinued, and specific antibacterial and supportive therapy instituted.

References: 1. Isenberg, H. D.: Clinical Evaluation of Laboratory Guidance to Antibiotic Therapy; Health Laboratory Science (July) 1967. 2. Saslaw, S., Carlisle, H. N.: Studies on Therapy of Staphylococcal Infections in Monkeys. 1. Comparison of Cloxacillin, Triacetyloleandomycin and Erythromycin. Proc. Soc. Exp. Biol. & Med.: Vol. 125, No. 4 (Aug.-Sept.) 1967.

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Each tablet and each 5 cc. of liquid contains:
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atropine sulfate 0.025 mg.

Halts Diarrhea Promptly

in children with . . . Gastroenteritis ▪ Spastic bowel
Influenza-like infections ▪ Antibiotic-induced diarrhea

Lomotil helps get children with diarrhea off toast and tea and back to normal diets and normal activity with gratifying dispatch. ▪ Lomotil lowers intestinal motility and permits absorption of excess fluid. This usually controls diarrhea promptly. ▪ Moreover, lowered intestinal motility achieved with Lomotil often relieves the abdominal cramps and discomfort so distressing to children.

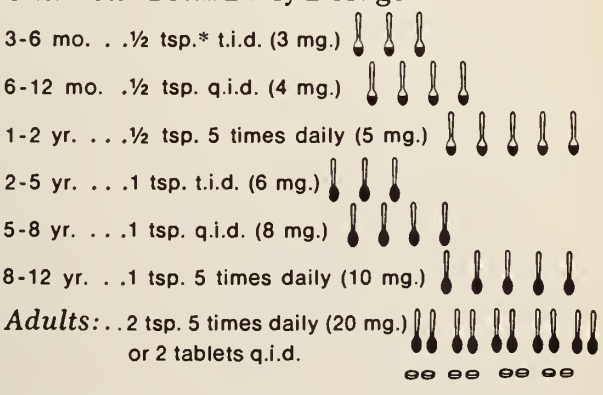
Precautions: Lomotil is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded, and medication should be kept out of reach of children. Should accidental overdosage occur signs may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia; continuous observation is recommended. Lomotil should be used with caution in patients with impaired liver function or those taking addicting drugs or barbiturates.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of the extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

Dosage: The recommended initial daily dosages, given in divided doses until diarrhea is controlled, are:

Children: Total Daily Dosage

3-6 mo. . .½ tsp.* t.i.d. (3 mg.)
6-12 mo. .½ tsp. q.i.d. (4 mg.)
1-2 yr. . . .½ tsp. 5 times daily (5 mg.)
2-5 yr. . . .1 tsp. t.i.d. (6 mg.)
5-8 yr. . . .1 tsp. q.i.d. (8 mg.)
8-12 yr. . .1 tsp. 5 times daily (10 mg.)
Adults: . .2 tsp. 5 times daily (20 mg.)
or 2 tablets q.i.d.



*Based on 4 cc. per teaspoonful.

Maintenance dosage may be as low as one-fourth the initial daily dosage.

SEARLE *Research in the Service of Medicine*

When the agitated businessman goes to work...

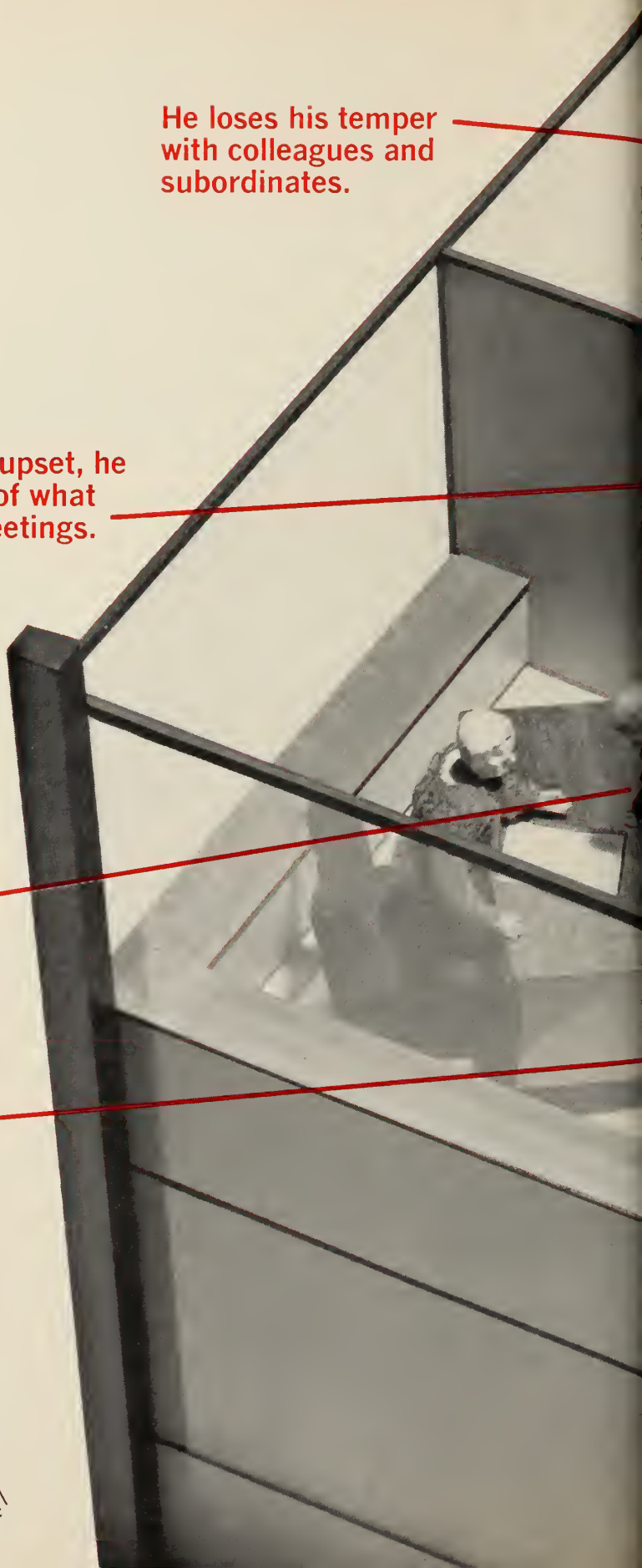
He goes home at night and takes it out on his family.

He loses his temper with colleagues and subordinates.

Emotionally upset, he misses half of what is said at meetings.

He is always fearful about his standing with the boss.

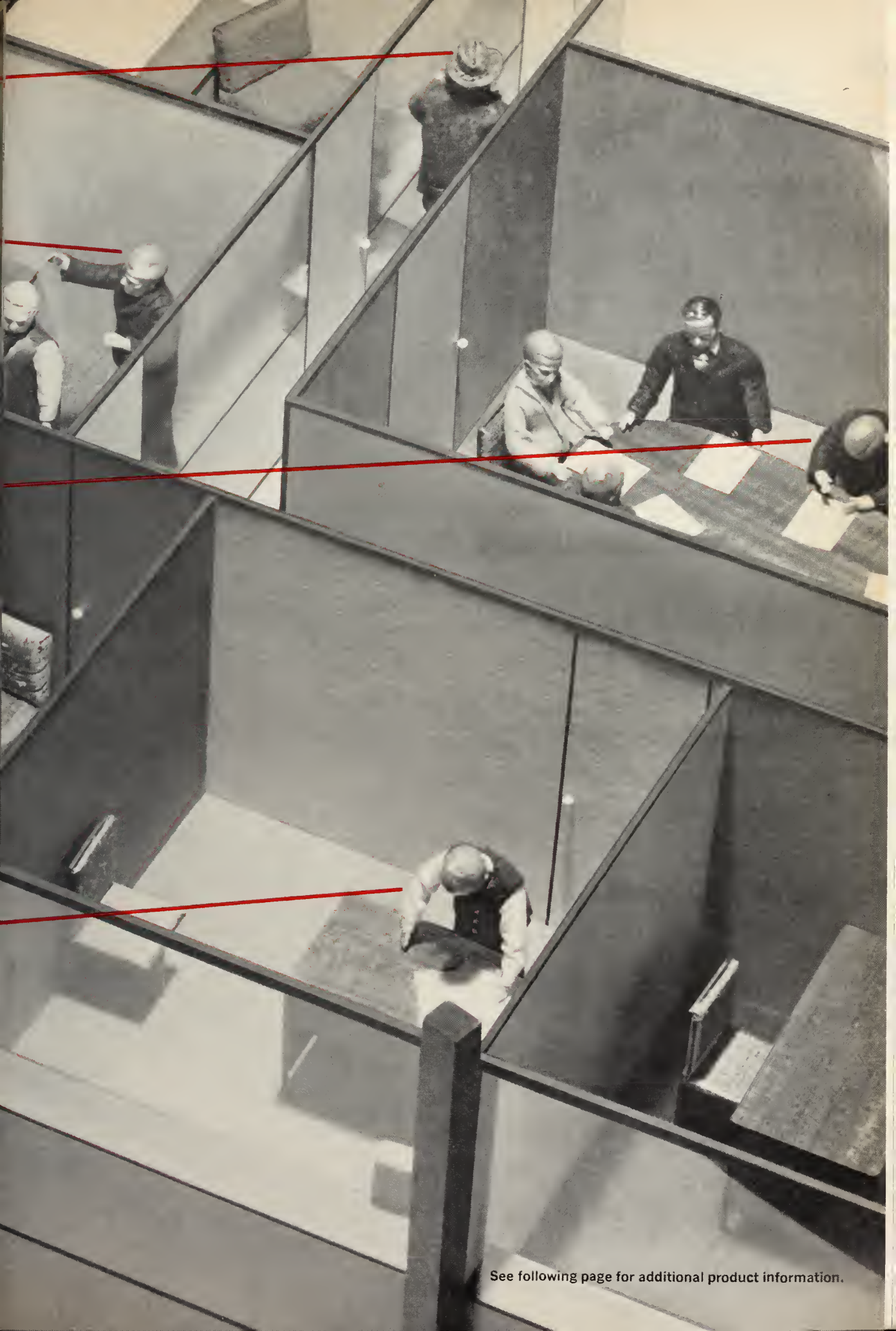
He just can't seem to settle down to his work.



for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

SANDOZ



See following page for additional product information.

When the agitated businessman goes to work...

Anxiety that seriously interferes with the individual's performance at work, at home, or in the community may be regarded as *moderate* to severe in degree.

Mellaril often recommends itself to the treatment of moderate to severe anxiety because it

- helps control the most frequent symptoms: marked tension, agitation, apprehension, restlessness, hypermotility
- often alleviates anxiety-induced somatic complaints
- frequently helps strengthen emotional resources
- helps the patient maintain realistic contact with environment, closer harmony with family

Thus, when you consider the anxiety moderate to severe... consider Mellaril.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

for moderate to severe anxiety

Mellaril®
(thioridazine)
25 mg. t.i.d.

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The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
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Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

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Dispensed in bottles of 100 and 1000 tablets.

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Report on Blue Shield Operations

(Editor's Note: The following report by Mr. H. F. Singleton, President of Blue Cross-Blue Shield of Alabama, Inc., was made to the Board of Censors at its December meeting. It covers the first year's operations under an agreement whereby the Association is given a stronger voice in determining Blue Shield policies.)

Mr. Chairman, I appreciate the opportunity to come before you to make a progress report on Blue Shield activities during the last few months. I will not go over the letter of agreement entered into between the Medical Association and Blue Shield since you are all familiar with it. In addition, Mr. Miller gave you a report on the agreement some two or three months ago.

First, I would like to report to you briefly on the activities of the professional relations department headed up by Harold Rimes. During the month of November, 14 workshops were held by the professional relations staff with medical assistants and other interested groups over the State of Alabama. They were well attended and the reports from many of those in attendance were very complimentary. Also, a Blue Shield Medical Assistants Manual has been distributed to all physicians' offices since September of this year. The reception to the manual has been extremely good and we have received many compliments.

In addition thereto, we have added two men to the staff of the professional relations department whose primary responsibility will be utilization review. Utilization review workshops are to be held in Decatur, Birmingham, Montgomery and Mobile in February. These workshops are to be co-sponsored by the Hospital Association, Nursing Home Association and, hopefully, by the Medical Association, which I understand will be presented to you today for your approval.

I will now move on and give you a report of the sales department. I would like to report to you that we have been successful in selling the usual and customary program to the federal employees who enrolled under the high option program to become effective January 1, 1968. The number of members in this group is 99,816. I would say that there are some members of this group living in every county in the State of Alabama. Of course, as you know, the concentration is in Mobile, Selma, Montgomery, Anniston, Huntsville and Birmingham.

Since July 1, we have sold the largest newspaper in Birmingham the usual and customary program, converted the Chrysler Corporation, Connors, Uniroyal, U. S. Steel and Woodward Iron. Including the federal employees, which is effective January 1, we will have 191,787 subscribers who have been converted from an indemnity program to the usual and customary program.

It is my feeling that we have a wonderful opportunity to convert more rapidly during the next year from an indemnity program to the usual and customary approach. However, it is essential that we have the complete cooperation of the members of the medical profession, particularly with the group of federal employees, for I am sure we will be observed very closely from the sidelines with respect to the administration of the program, as well as the cost. As we implement these programs, I am sure we all realize that information concerning these better programs will get around by word of mouth which will open doors with other larger employers who now have limited indemnity programs. In addition to the groups converted to the usual and customary program, we have 182,392 people covered under our major medical program. About half of our major medical people have a low indemnity program. However, you are all familiar with how the major medical works—after meeting their basic deductible requirement, these people have a reasonable and customary program.

I would like to call your attention also to the fact that we modified our benefits under the C-plus contract effective July 1, which brings this group of people to a reasonable and customary program. We will now pay 20 per cent of the reasonable and customary charges without any deductible, which means that our senior citizens holding our contract with Medicare "B" will only have to pay $40 during a 12 months period.

Since October of this year, our sales staff no longer offers a $3 a day in-hospital medical program to new groups that are enrolled in Blue Cross and Blue Shield. Our efforts are to start with the $15- $10- and $5 program and work down, trying to stop at $5 a day. Success, of course, depends upon how much money the employee or employer is willing to pay for more comprehensive benefits. You all realize where there is a contribution made by the employer for a health benefit program, we have a much better chance of upgrading the benefits. I would like to point out to you the competition that we face in Alabama concerning the upgrading of our members to the comprehensive program. According to the Argus Chart, there are 154 insurance companies licensed to write hospital and medical-surgical benefits in Alabama.

During the year, we have made considerable progress in processing Part "B" claims in the Medicare Program. I would say in the next 60 days, we will have made considerable strides toward being as current as possible in administering such a program. It was necessary to change our procedures in Medicare Part "B" effective December 1, which will take another 30 days to get back to a smooth running program.

We have made some progress in our basic claims department; however, not to the extent that I had planned and hoped. However, in the next 90 days, you will see considerable improvement in the payment of our basic Blue Shield claims.

There are many other items I would like to call to your attention. However, I have tried to touch on the highlights and give you a brief progress report, particularly during the last six months.

Teaching Roster

The Committee on Medical Education and Hospitals adopted as one of its objectives a responsibility toward the continuing education of the membership of the Medical Association and elected to call upon the teaching interests, abilities, and knowledge of the physician group in proposing a program of mutual teaching and learning between the physicians of the State. The membership of the Association was invited to indicate interest in being considered for the Teaching Roster. Responses have been obtained and a Roster

of 100 physicians has been selected. Some attempt was made to include a geographic and a teaching topic spread in the selection of participants. The operating policies of the program and the Teaching Roster are being circulated to the presidents of all county medical societies. Physician groups and county medical societies may work through the Central Office of the Association or through the Division of Continuing Medical Education of the Medical College of Alabama in the preparation of programs to suit their particular needs.

The Committee is pleased to present this program to the physicians of the State and looks forward to working with the physicians toward making it an effective continuing education endeavor.

Respectfully submitted,

Margaret S. Klapper, M. D., Chairman
Committee on Medical Education and Hospitals

Operating Policies

1. All physicians of MASA will be asked to indicate their interest in being included on the Teaching Roster and the area of teaching in which they wish to participate.

2. The Committee on Medical Education and Hospitals will work through the county medical societies.

3. Each county society will be requested to appoint an individual at the local level as coordinator of the program. Counties with few physicians may elect to join together in appointing such a coordinator.

4. Programs are to be patient oriented in the hospital setting with emphasis on clinical medicine. Programs will be the equivalent of one day or more, for example, a day or a day and half in length with not more than one-half the time being devoted to didactic presentations and at least one-half the time being spent with patient presentations and rounds. Patients may be those who are hospitalized or who have been brought in from the community for the particular program. A typical program might consist of ward rounds and patient discussion from 9 to 12 a. m., didactic presentations and discussion 1 to 3 p. m.

5. The visiting team will consist of a minimum of two physicians, the number may be increased for programs which warrant a larger number. Program arrangements must be completed at least one month or more in advance of the date selected, and a minimum of 8 to 10 physicians from the community are required as participants per program.

6. Members of the Roster will agree to participate in one program per year and to consider a second program upon request.

7. Appointments to the Teaching Roster will be for three years and subject to reappointment.

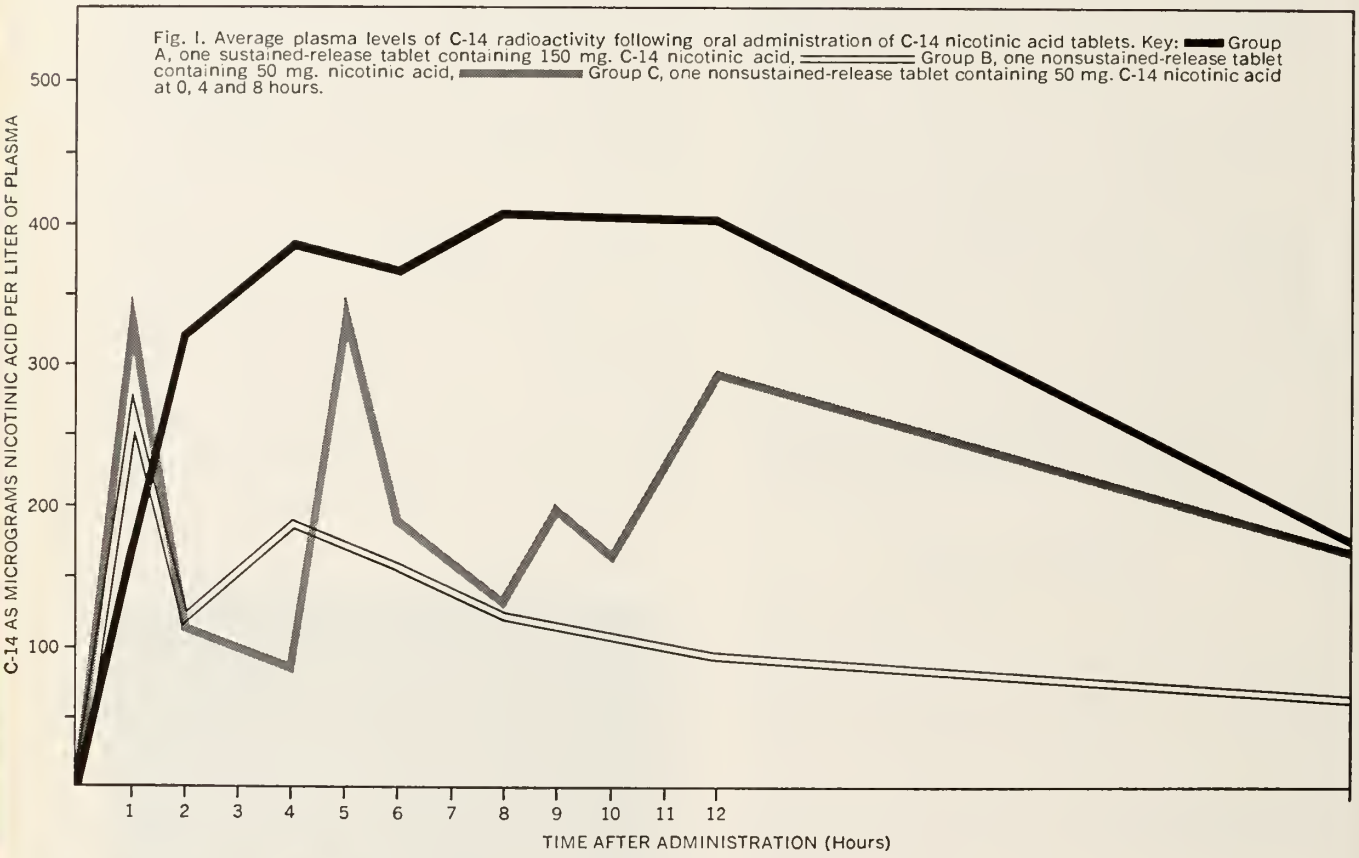
8. Not more than half of the Roster will be selected from the full-time teaching fac-

(Continued on Page 932)



Sustained circulatory, respiratory and cerebral stimulation for the

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═══ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.





(fewer absent doses by absent-minded patients)

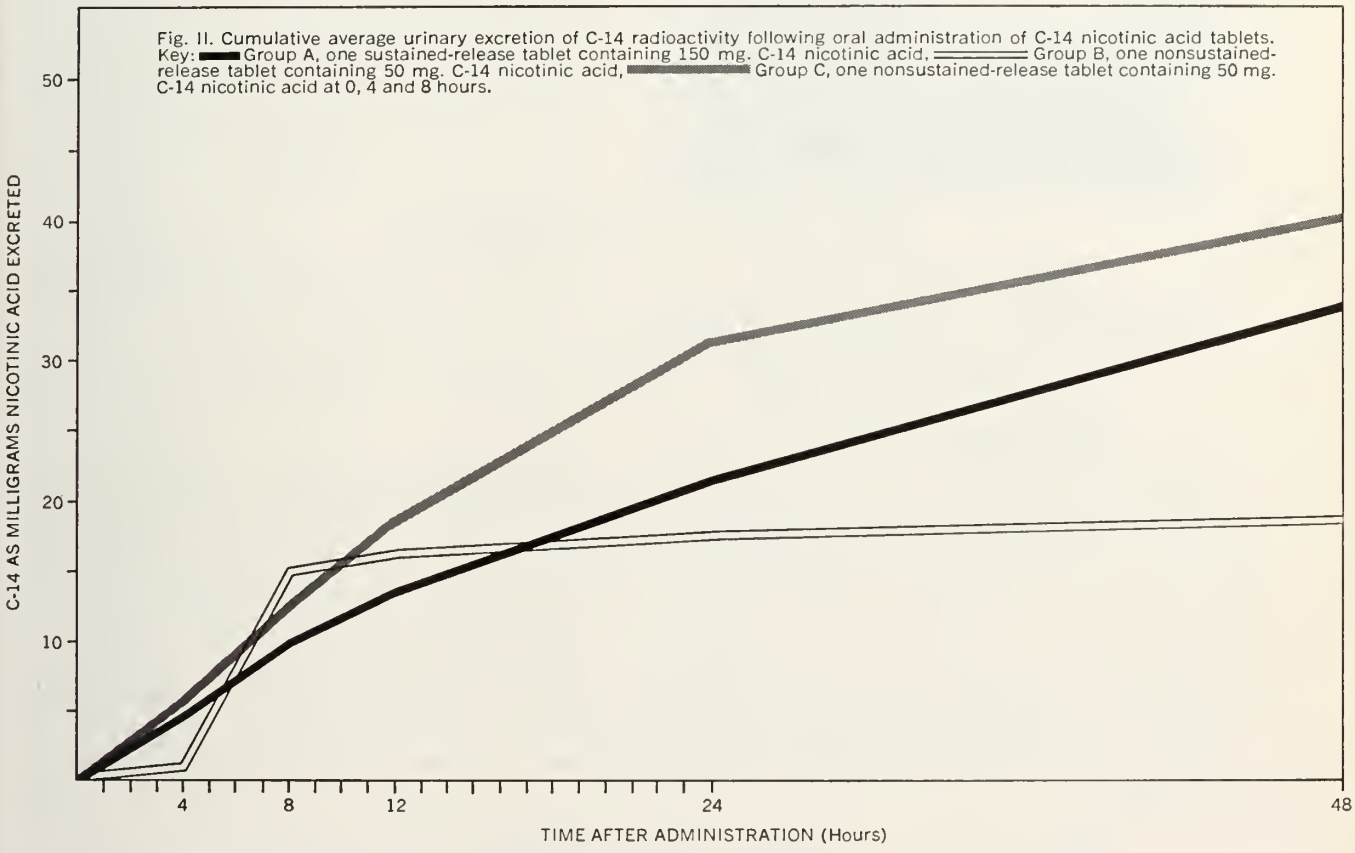
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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(Continued from Page 929)

ulty of the Medical College of Alabama.

9. Visiting physicians will be reimbursed at $100. per day through the local medical society, hospital, or physician group for participation and expenses incurred.

10. A coordinator appointed by the county society or the president will select physicians from the Roster and make up the program to meet the needs of the particular community. If an individual selected has already participated for his allotted time, an alternate selection becomes necessary.

11. The local coordinator is responsible for the local arrangements, the visiting physician for preparation and supply of teaching materials.

12. The county coordinator, the Montgomery Office of MASA and the Director of Continuing Education at the Medical College will work out the details of the programs.

1967 Medicare Amendments

(Editor's Note: *The following interpretation of the Social Security Amendments of 1967 was prepared by the U. S. Department of Health, Education and Welfare. For further details, physicians should contact their nearest health insurance regional representative or the Social Security Administration.*)

The Social Security Amendments of 1967 made significant improvements in medicare, both in increasing protection and in simplifying program operations. Among the more important changes are: the elimination of the receipted bill requirement for nonassigned bills under medical insurance; the removal of physician certification requirements for general hospital admissions and outpatient services; the consolidation of all outpatient coverage into the medical insurance program; the payment of full reasonable charges for inpatient radiology and pathology services furnished by physicians; coverage of additional days of inpatient hospital care; and broadened outpatient physical therapy benefits.

These, and other changes, are briefly described below. More definitive materials will be issued soon.

SUMMARY OF CHANGES

Payment for Physicians' and Other Medical Services May Be Made on Unpaid Bills

If no assignment is taken, medical insurance payments may now be made directly to the patient on the basis of an itemized bill—even though it has not been paid. There is no change in the assignment method under which physicians and suppliers may have payment made directly to them. This new provision applies to all bills received or processed by carriers on or after January 2, 1968 (the date of enactment) even though the services were rendered before that date.

The Request for Medicare Payment (SSA-1490) is being revised to reflect this new provision. The present 1490 may continue to be used for both payment methods.

Time Limit for Filing Medical Insurance Bills (Paid or Unpaid)

In order for payment to be made on a bill it must be submitted before December 31 of the year following the year in which services are received. For purposes of this rule, services received in the last 3 months of a calendar year are counted as received in the following year; thus, bills for such services may be submitted until December 31 of the second year after the year in which services were actually received.

A special extension permits bills for cov-

ered services received in July, August, or September, 1966, to be submitted until March 31, 1968.

Elimination of Certain tPhysician Certifications

Physician certification of medical necessity for virtually all outpatient hospital services and admissions to general hospitals has been eliminated. The provision applies to admissions and to outpatient services furnished on and after January 2, 1968. The first certification for inpatient services in a general hospital will now be required as of the 14th day of services. Initial certification is still required for admissions to psychiatric and tuberculosis hospitals and to extended care facilities.

Additional Inpatient Hospital Benefit Days (Effective January 1, 1968)

Each hospital insurance beneficiary will have a "lifetime reserve" of 60 additional days of inpatient hospital coverage. These additional days can be used at the patient's option whenever the 90 days covered in a "spell of illness" have been exhausted, and are subject to $20 a day coinsurance. This benefit is not renewable; the number of days in a beneficiary's "lifetime reserve" is permanently reduced by the number of days used.

NOTE: If the beneficiary is an inpatient of a participating hospital on January 1, 1968, and has previously exhausted his inpatient hospital benefits, the lifetime reserve days can be drawn on immediately.

Full Reimbursement of Radiology and Pathology Services to Hospital Inpatients (Effective April 1, 1968)

Payment of the full reasonable charges may be made under medical insurance for radiology and pathology services furnished by physicians to inpatients of participating hospitals. The $50 annual deductible does not have to be met. Thus, because there will rarely be any patient liability for these services, medicare reimbursement procedures can

(Continued on Page 934)



One by one
the family's downed
Because the
G.I. bug's around

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin,
and protects intestinal mucosa

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Pectin (2½ grains) 162 mg.
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Usual Adult Dose: One or two tablespoonfuls three times daily.
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ROBERER

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(Continued from Page 933)

be greatly facilitated and the patient can frequently be left out of the process completely.

Under this provision, it will also be possible to pay for radiology and pathology services to hospital inpatients in a manner that is more consistent with the usual billing procedures of many hospitals and the manner in which these services are reimbursed by most other health insurance programs. Where the hospital customarily bills for both the hospital's services and the services of the pathologists and radiologists, the absence of the medical insurance deductible and coinsurance will now make it unnecessary to break down the bill on a patient-by-patient basis into the parts covered under the hospital insurance and medical insurance programs, since this can be done on an aggregate basis. Thus, where the total services are billed through the hospital, the provision would provide opportunities for the development of hospital billing procedures that will greatly reduce paperwork and facilitate administration.

Inclusion of All Outpatient Hospital Benefits Under Medical Insurance
(Effective April 1, 1968)

This provision consolidates all covered outpatient hospital services under the medical insurance program. Thus, there will be only a single deductible and coinsurance applied to *all* covered outpatient hospital services (the $50 annual medical insurance deductible and 20 per cent coinsurance), and no need to separate diagnostic from therapeutic services as in the past, for allocation of costs and charges to different parts of the medicare program.

Also, effective April 1, 1968, hospitals may, in situations to be described in forthcoming regulations, collect an outpatient charge of $50 or less from the beneficiary. This provision will simplify hospital collection processes in situations where the hospital cannot readily determine whether the patient has met the deductible, and he is able to pay the bill at the time services are rendered. Where such collections are made, the beneficiary would ordinarily recieve the medical insurance reimbursement on the basis of a claim prepared on his behalf by the hospital. Payments to the hospital will be periodically adjusted to assure the total hospital reimbursement for outpatient services does not exceed what the hospital would have received if it had submitted all bills on a cost reimbursement basis.

Payment for Additional Outpatient Physical Therapy Services
(Effective July 1, 1968)

At present, physical therapy services are covered when furnished under the direct supervision of a physician or to homebound patients under a home health plan. Effective July 1, 1968, physical therapy services will also be covered under the medical insurance program when furnished by qualified providers of services or others under arrangements with, and under the supervision of, such providers. For purposes of this additional coverage, the term "providers of services" includes approved clinics, rehabilitation agencies and public health agencies. In order for payment to be made for such services, a physician must certify that the patient requires physical therapy services on an outpatient basis, and is under a plan of treatment established and periodically reviewed by a physician which prescribes the type, amount, and duration of the services. The patient does not need to be confined to his home.

Payment Under Medical Insurance for Certain Ancillary Services Not Payable Under Hospital Insurance
(Effective April 1, 1968)

Under this provision, payment can be made under medical insurance for certain ancillary services furnished by a hospital or extended care facility for which no payment can be made under hospital insurance. This provision would apply, for example, where a pa-

(Continued on Page 939)

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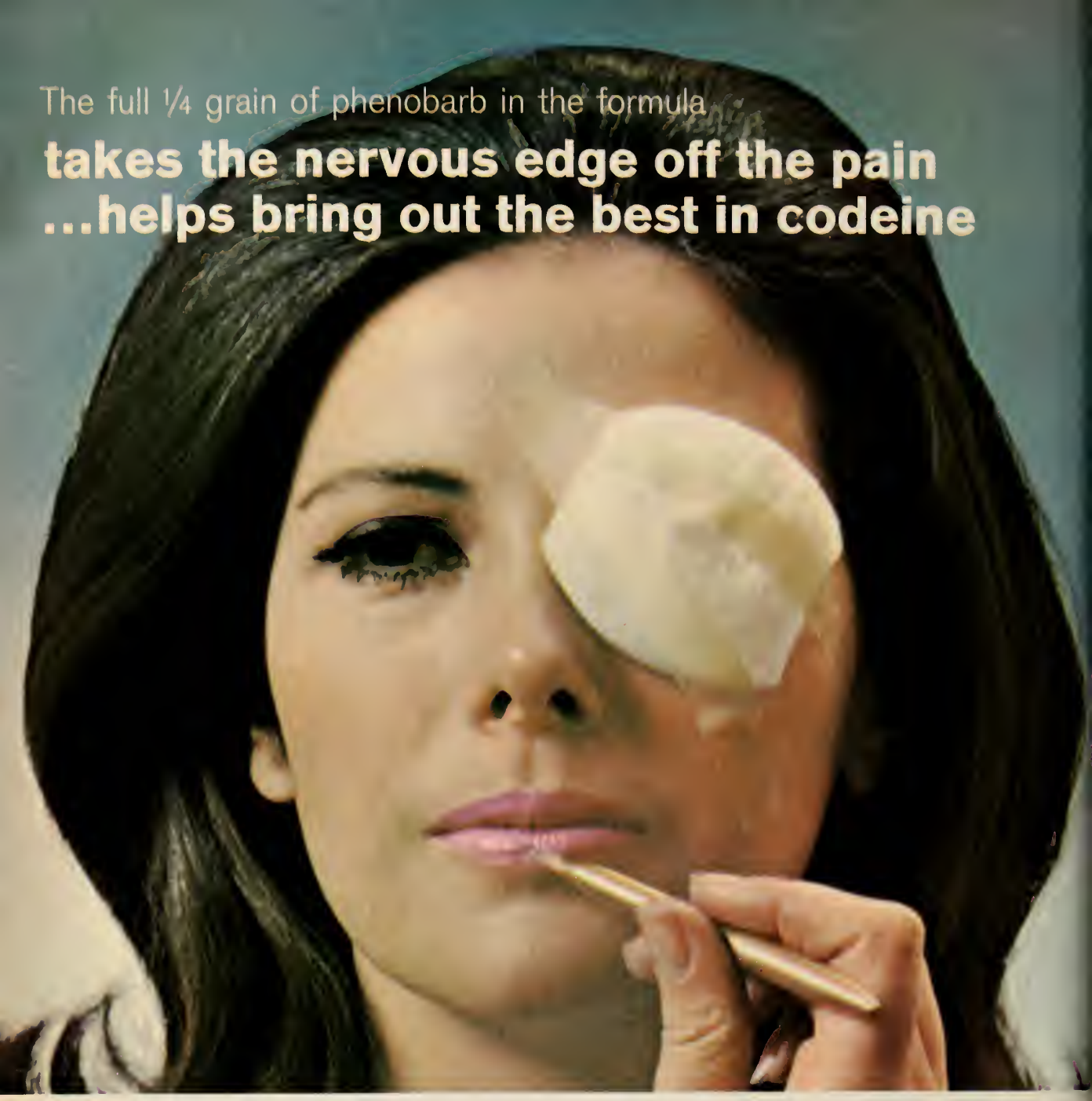
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Letter® is micronized to provide maximum opportunity for full absorption and clinical response.

In addition Letter® is distinctively color coded with an identifying number stamped on each tablet to provide accurate dosage control.

Indications: Hypothyroid conditions. **Contraindications:** Thyrotoxicosis, acute myocardial infarctions unless associated with hypothyroidism. In hypothyroidism with hypoadrenalism coadministration of corticoids with LETTER® is recommended. **Precautions and Side Effects:** Excessive dosage may result in diarrhea, cramps, palpitation, nervousness, rapid pulse, sweating. If symptoms appear, discontinue medication for several days, then reinstitute at a lower level. Since myxedema patients with heart disease may suffer seriously from abrupt increases in dosage, caution should be exercised in adjusting dosage. **Dosage:** Generally, the initial adult dosage is 0.1 mg. daily. This may be increased in small increments every one to three weeks until proper metabolic balance is achieved. **Available:** Bottles of 100 tablets, in six potencies: 0.025 mg. (violet), 0.05 mg. (peach), 0.1 mg. (pink), 0.2 mg. (green), 0.3 mg. (yellow), and 0.5 mg. (white).

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Contraindications: Hypersensitivity to any ingredient.

Precautions: As with all phenacetin-containing products, avoid excessive or prolonged use.

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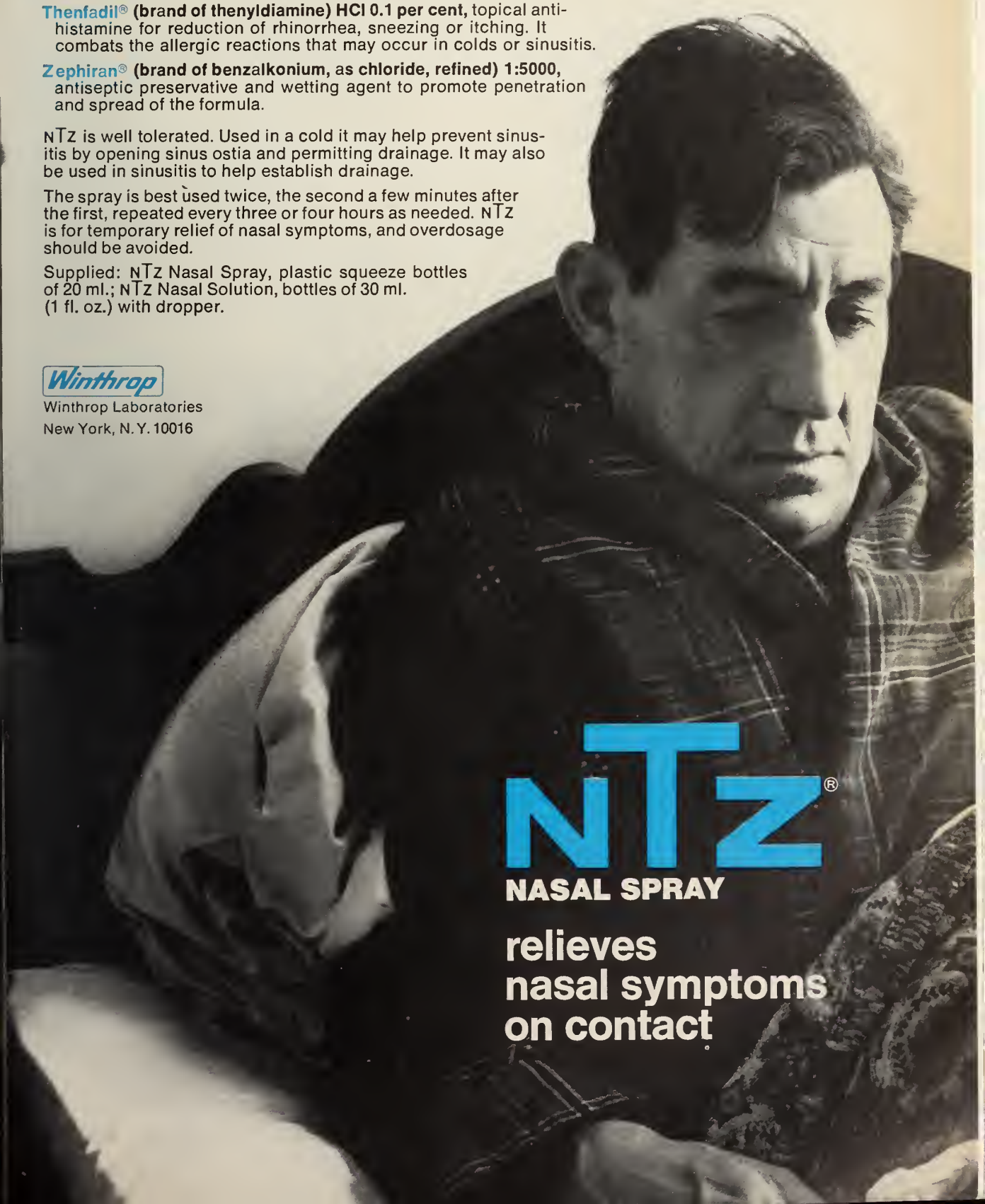
NTZ is well tolerated. Used in a cold it may help prevent sinusitis by opening sinus ostia and permitting drainage. It may also be used in sinusitis to help establish drainage.

The spray is best used twice, the second a few minutes after the first, repeated every three or four hours as needed. NTZ is for temporary relief of nasal symptoms, and overdosage should be avoided.

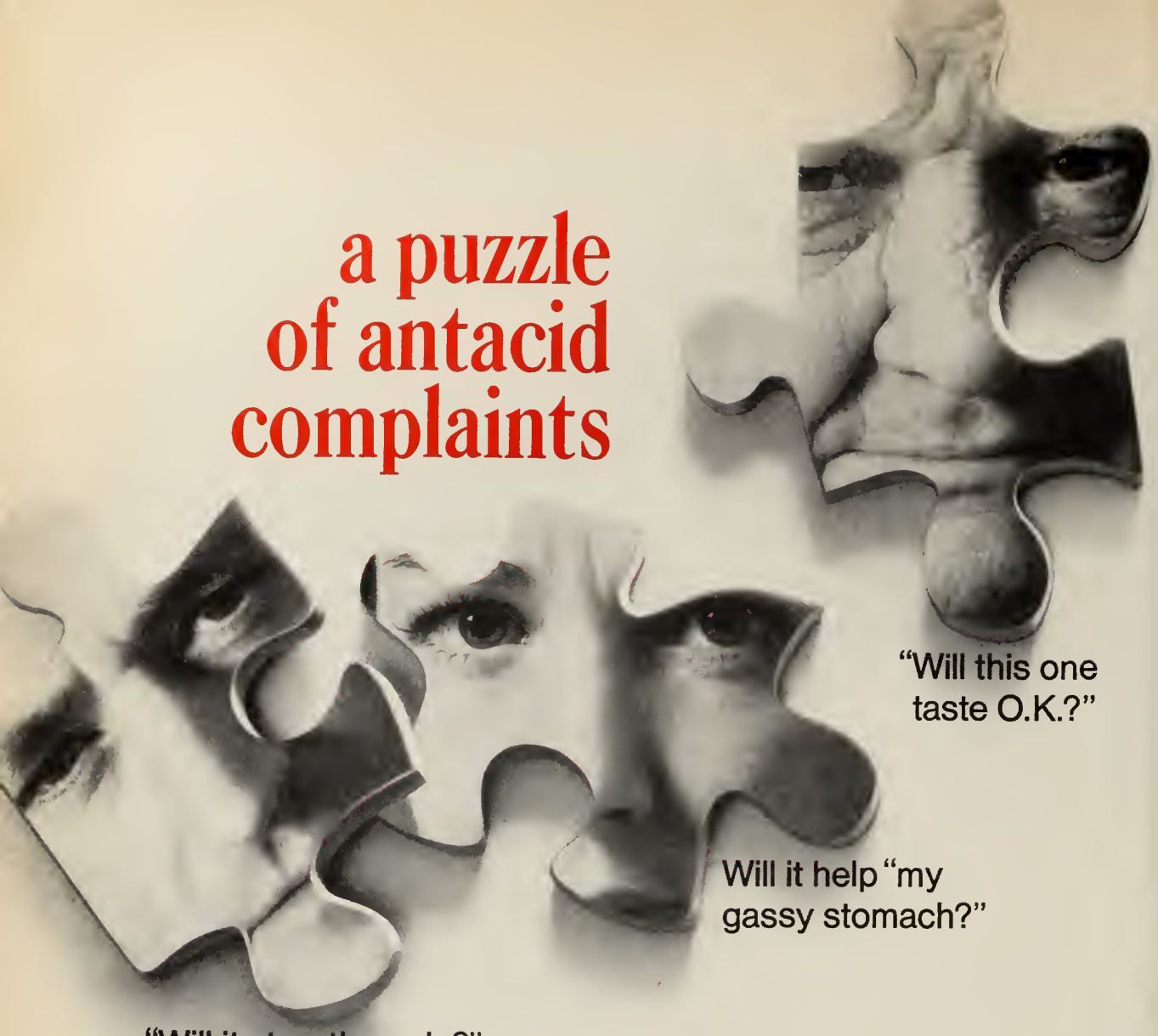
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in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg.
Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

Stuart
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(Continued from Page 934)

tient has exhausted his hospital insurance eligibility or where an extended care facility patient has not met the prior hospitalization requirement. These benefits are subject to the $50 deductible and 20 per cent coinsurance.

Inclusion of Certain Podiatrists' Services and General Exclusion of Specified Foot Care Services
(Effective January 1, 1968)

Services of doctors of podiatry or surgical chiropody are covered under the medical insurance program as physicians' services, but only with respect to functions which they are authorized to perform by the State where they practice. However, certain specified foot care services will now be excluded whether performed by a podiatrist or medical doctor. These exclusions include treatment of flat foot conditions, the prescription of supportive devices for such conditions, treatment of subluxations of the foot, and routine foot care (including cutting or removal of corns, warts or callouses, trimming of nails and other routine hygienic care).

Specific Exclusion of Eye Refractions

All procedures performed during any eye examination on and after January 2, 1968, to determine the refractive state of the eyes (even in connection with furnishing prosthetic lenses) are now excluded from coverage. The exclusion applies whether the refractions are performed by ophthalmologists, other physicians, or optometrists, and even though the total examination is for the treatment or diagnosis of eye disease or injury.

Payment for Purchase of Durable Medical Equipment
(Effective January 1, 1968)

In addition to payment for rental, payment can also be made for purchase of durable medical equipment by or for an individual. Except for inexpensive items, payment will be made periodically in the same amount as if the equipment were rented, but only for the period of time that the equipment is medically necessary or until the purchase price has been met, whichever occurs first.

Payment for Portable X-Ray Services
(Effective January 1, 1968)

Payment will be made for diagnostic X-ray services furnished in the patient's home or other place of residence. These services will be covered under medical insurance if they are provided under the general supervision of a physician and if they meet health and safety regulations.

Blood Deductibles
(Effective January 1, 1968)

Under this provision, the definition of "blood" is broadened to include packed red blood cells as well as whole blood. A 3-pint blood deductible will now also apply to the medical insurance program for blood furnished during a calendar year in connection with services covered by that program. This deductible is separate from the 3-pint blood deductible for each "spell of illness" in the hospital insurance program, and neither can be used to meet the other.

Changes in Reduction of Benefit Days for Psychiatric and Tuberculosis Treatment
(Effective January 1, 1968)

Any inpatient days in a psychiatric or tuberculosis hospital in the 90-day period before his hospital insurance coverage began have previously counted against a beneficiary's days of coverage during his first "spell of illness." This provision has been modified as follows:

1. The reduction will not apply to tuberculosis hospitals.
2. The provision no longer prevents payment for inpatient services in a general hospital unless the services are primarily for the diagnosis or treatment of mental illness and the spell of illness began in a psychiatric hospital.
3. The applicable period prior to hospital insurance eligibility has been extended from 90 to 150 days to reflect the new

lifetime reserve of 60 additional inpatient hospital days.

Payment for Services Furnished to Inpatients of Non-Participating Hospitals

Under this provision, partial payment may be made for inpatient emergency or non-emergency services furnished by certain non-participating hospitals between July 1, 1966, and January 1, 1968, and for *emergency* inpatient services furnished by certain non-participating hospitals in respect to admissions on or after January 1, 1968. A facility is considered a hospital under this provision if it is licensed as a hospital, has a full-time nursing service and is primarily engaged in furnishing medical care under the supervision of a doctor of medicine or osteopathy. Hospital insurance will pay 60 per cent of the room and board charges and 80 per cent of other charges for covered services after the usual deductibles are met. These benefits are limited to 20 days if the hospital does not qualify to take part in medicare, but if the hospital begins to participate in medicare before January 1, 1969, and applies its utilization review plan to the services rendered, the full duration of hospital insurance benefits can apply.

Special instructions concerning this change will be transmitted shortly to all hospitals and related health care institutions and organizations.

SPECIAL STUDIES AND ADVISORY GROUPS

Incentive Reimbursement Experimentation

The Secretary of Health, Education, and Welfare is authorized to experiment with alternative methods of reimbursement to organizations and physicians under the medicare, medicaid and child health programs. The experiments would test various incentives for increasing the efficiency and economy of health services without adversely affecting the quality of care. Experiments may involve only those physicians, institutions, and organizations that agree to participate and may not be initiated until the Secretary obtains the advice and recommendations of specialists competent to evaluate the possibility of securing productive results.

Advisory Council Study of Health Insurance for the Disabled

An advisory council, to be appointed in 1968, will study the question of providing health insurance protection for the disabled under Title XVIII. The council will make its recommendations to the Secretary not later than January 1, 1969.

Health Insurance Benefits Advisory Council

The 1967 amendments expand the responsibilities of the Health Insurance Benefits Advisory Council to include reviewing the utilization of services under medicare and making recommendations for program changes.

Study of Drug Proposals

The Secretary will study a proposal to establish quality and cost standards for drugs for which payment is made under the Social Security Act, and a proposal to cover drugs under the medical insurance program. He is required to report his findings and recommendations to the President and the Congress by January 1, 1969.

Coverage of Services of Additional Health Practitioners

The Secretary will study the need for extension of coverage under the medical insurance program to the services of additional types of licensed practitioners performing health services in independent practice. He will make recommendations to the Congress prior to January 1, 1969.

Theories of Defense and Jury Charges in Medical Malpractice Cases*

By Paul W. Brock**

I. General Denial and Failure of Proof

The most commonly invoked defense and the one which is customarily most satisfactory to the defendant consists of a simple denial of the material allegations of the complaint. As will be later discussed, while almost all of the affirmative defenses are available in malpractice cases as a legal matter, there are often valid tactical reasons why they are not used.

Of all of the reported malpractice cases of this jurisdiction, more have been decided on the question of the sufficiency of the evidence than on any other single point. This is caused, at least in part, by the respective legal definitions of the duties of doctors and of hospitals.

In *Torrance v. Wells,* 219 Ala. 384, 122 So. 322 (1929), is found a good general definition of the legal duty of doctors:

"A physician or surgeon undertakes to exercise at least ordinary diligence and skill in the treatment of his patient—such care and skill as physicians and surgeons in the same general neighborhood, pursuing the same general line of practice, ordinarily exercise in like cases."

In *Cooper v. Providence Hospital,* 272 Ala. 283, 130 So.2d 8 (1961), the court said this, with reference to the duty of hospitals:

"Measure of duty owed by hospital to patient was that degree of care, skill and diligence used by hospitals generally in community and by the express or implied contract of the undertaking."

As a general rule, there will seldom be any express or implied contract which requires a higher degree of care than that provided a patient who is admitted in the normal course of business.

Shelton v. Hacelip, 167 Ala. 217, 51 So. 937 (1910), is the earliest reported medical malpractice case.[1] The minor plaintiff had sued for loss of sight of her right eye, alleging that it resulted from application of medicine prescribed by the defendant doctor. Despite expert testimony to the effect, that there was no harmful ingredient in the medicine and, further, that the medicine could not have caused the injury complained of, the jury returned a verdict in favor of the plaintiff. The Supreme Court enunciated the general standard of care required by doctors (as first stated herein) and reversed and remanded, holding that the defendant's motion for a new trial should have been granted inasmuch as the verdict was against the preponderance of the evidence.

The court did not state that it was following the rule set forth in later Alabama malpractice cases, to the effect that, in certain instances, even though there was a conflict in the evidence as a whole, if there was no conflict in the expert testimony, it should control.[2]

The primary significance of *Hamrick v. Shipp,* 169 Ala. 171, 51 So. 937 (1910), decided a few months after *Shelton,* lies in the following jury charges, which were given by the court at the request of the defendant and approved on appeal as being correct statements of the law:

"(1) The question submitted to you for deter-

(Continued on Page 944)

*A Continuing Legal Education Paper given at 1966 Circuit Judge Seminar at University of Alabama.

**Mr. Brock is an Attorney at Law in Mobile, Alabama.

Reprinted from the July issue of THE ALABAMA LAWYER.



Tandearil®, oxyphenbutazone, 100 mg. tablets

Indications: Osteoarthritis, rheumatoid arthritis, rheumatoid spondylitis, psoriatic arthritis, gout, painful shoulder (peritendinitis, capsulitis, bursitis and acute arthritis of that joint), acute superficial thrombophlebitis, severe forms of a variety of local inflammatory conditions. (In inflammatory conditions not involving prolonged or fatal disease, use only when severity of condition balances potential toxicity.)
The drug has no significant uricosuric action but is of value only in the treatment of acute gouty arthritis.
Contraindications: Edema, danger of cardiac decompensation, history or symptoms of peptic ulcer, renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.
Warning: Tandearil is an analog of phenylbutazone; sensitive patients may be cross-reactive. If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Instances of severe bleeding have occurred. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.
Precautions: Before prescribing, carefully select patients, avoiding those responsive to routine measures as well as contraindicated patients. Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should not exceed recommended dosage, should be closely supervised and should be warned to discontinue the drug and report immediately if fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage occur. Make regular blood counts. Discontinue the drug immediately and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.
Adverse Reactions: The most common are nausea, edema and drug rash. Swelling of the ankles or face may be minimized by with-

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Of course, Tandearil is not for every osteoarthritic. Select your patients carefully and follow them in line with the Contraindications, Precautions, Warning, and Adverse Reactions listed below.

But for many aspirin-stubborn osteoarthritics, let Tandearil ease the unwelcome pain breaks of osteoarthritis.

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holding dietary salt, reduction in dosage or use of diuretics. In elderly patients and in those with hypertension the drug should be discontinued with the appearance of edema. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. The patient should be instructed to take doses immediately after meals or with milk to minimize gastric upset. Mild drug rashes frequently subside with reduction of dosage. However, rash accompanied by fever or other systemic reactions usually requires withholding medication. Purpuric rash has also been reported. Agranulocytosis or a generalized allergic reaction similar to a serum sickness syndrome may occur and require permanent withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: Initial: 3 to 6 tablets daily in divided doses. It is usually unnecessary to exceed 4 tablets daily. A trial period of 1 week is adequate to determine response; in the absence of a favorable response, discontinue. Maintenance: An effective level is often achieved with 1 or 2 tablets daily, do not exceed 4 daily. 6562-VI(B)R2

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(Continued from Page 941)

mination by you in this case is not whether the boy had periostitis, osteomyelitis, or rheumatism, but whether the defendant was possessed of reasonable skill, and was reasonably diligent, not negligent, in efforts to diagnose and properly treat the case.

(4) The court charges the jury that the law only requires the exercise of that degree of skill which is usually employed by physicians. He does not warrant a cure.

(5) The court charges the jury that the jury cannot draw the conclusion of unskillfulness or negligence simply because the treatment was not successful."

A verdict for the plaintiff was reversed because of the failure of the trial court to give the general affirmative charge in favor of the defendant in *Moore v. Smith*, 215 Ala. 592, 111 So. 918 (1927), the court stating that the plaintiff's evidence that the intestate's infection had followed an injection by the defendant doctor by twenty-four hours and that there was a possibility that the infection had entered the body at the site of this injection was insufficient to take the case to the jury. The report shows this:

"Obvious corollaries to the rule of liability are that a physician or surgeon, unless by express undertaking, does not warrant a cure or a successful result, and is not liable for an honest mistake or error of judgment in making a diagnosis, or prescribing a mode of treatment, where the proper course is subject to reasonable doubt. *Barfield v. S. H. Infirmary*, 191 Ala. 553, 68 So. 30

And the mere possibility of such a result is not sufficient.

The doctrine of res ipsa loquitur does not apply to the mere fact of a blood infection, however closely, in temporal sequence, it may follow a medical treatment. 'The burden of proof is not shifted by showing that an unsuccessful result was attended the treatment of the patient by the physician. Nor does the unsuccessful result of the case shift from the plaintiff to the defendant the burden of going forward.' "

Another case involving a failure of proof is *Carraway v. Smith*, 218 Ala. 412, 118 So. 758 (1928), in which the testimony was that the condition of the plaintiff's leg when the cast was removed could have been caused (1), by the improper setting of the plaintiff's leg (which was the allegation of the complaint);

(2), by a reduction of the swelling or a contraction of the muscles, or (3), by a slippage of the bone fragments at the point of fusion. The court held that the evidence presented nothing more than a plausible conjecture that the injury occurred as charged in the complaint and that this was not sufficient "to meet and carry the burden of proof resting upon the plaintiff." Accordingly, it reversed the judgment in favor of the plaintiff and remanded. This is but one of many similar holdings to the effect that the mere possibility that the injury occurred as alleged by the plaintiff does not suffice to take the case to the jury.

The Supreme Court reached the same result, but by a different route, in *Carraway v. Graham,* 218 Ala. 453, 118 So. 807 (1928), when it held that, although there was sufficient evidence for the case to go to the jury, the weight of the testimony and particularly the weight of the expert testimony, which it said should control, was in favor of the defendant. So saying, it reversed a judgment for the plaintiff and remanded.

The court also found that the preponderance of the evidence was against a plaintiff's verdict in *McTyeire v. McGaughy,* 222 Ala. 100, 130 So. 784 (1930), a malpractice action against a dentist. It pronounced the following standard of care, which is almost verbatim with that owed by doctors:

> "That is, they are required in the practice of their profession to exercise reasonable and ordinary care, diligence, and skill in respect to the duty so assumed and undertaken, such skill and care as dentists in the same general neighborhood, pursuing the same general line of practice, ordinarily employ and exercise in like cases."

The court reversed and remanded because of the failure of the trial court to grant the defendant's motion for a new trial, even though it held there was sufficient evidence to take the case to the jury initially.

Failure of proof of a different sort appears in *Birmingham Baptist Hospital v. Crews,* 229 Ala. 398, 157 So. 224. Here, a father had carried his minor daughter, critically ill with diphtheria, to the defendant hospital. The

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doctors there had undertaken emergency service, but had not accepted the child for regular treatment and told the father that she could not be so accepted, because of the highly contagious nature of her disease. The father then took his daughter home, where she died within a few minutes. The appellate court held that the hospital should have been given the general affirmative charge, pointing out that since the defendant was a private corporation and not a public hospital, it owed no duty to accept any patient not desired by it and that because of this, together with the fact that there was no evidence that the child had been accepted as a regular patient or that the emergency treatment had in any way done anything to cause the death of the child, the plaintiff's verdict should be set aside.

Other malpractice cases resulting either in the affirmance of judgments for the defendant or in the reversal of judgments for the plaintiff because the plaintiff's proof did no more than show a possibility among other possibilities that the injuries complained of resulted from the negligence charged are *Ingram v. Harris*, 244 Ala. 246, 13 So.2d 937 (1943), in which there was insufficient evidence as to the cause of the blood clot resulting in death; *Watterson v. Conwell*, 258 Ala. 180, 51 So.2d 690 (1952), in which there was inadequate proof that the doctor's negligence had caused injury to the plaintiff's knee, and *Gadsden General Hospital v. Bishop*, 209 Ala. 272, 96 So. 145 (1923), in which proof that there was another man with scabs on his face in the hospital at the same time as the plaintiff's intestate was insufficient to show that the decedent contracted smallpox as a result of the defendant's negligence. In this case, the court spelled out the essential facts which must be proved by the plaintiff in such a case:

"(1) That plaintiff's intestate died of smallpox; (2) that he contracted the disease while he was a patient in the defendant's hospital; (3) that this resulted from infection communicated to him from another patient who was in the hospital during the intestate's presence there; (4) that the defendant's nurses, agents, or servants who controlled or managed the hospital knew that such other patient was afflicted with smallpox; and (5) that they so negligently handled said patient that they negligently exposed the intestate to infection from him."

This is the same type of proof which the court would require in a staphylococcus case, which is one of the commoner types of hospital infection actions.

Two interesting jury charges were given for the defendant in *Hatcher v. Camp*, ... Ala., 187 So.2d 232 (1966), in which there was a verdict for the defending physician. The Supreme Court said that these charges, while not perfect in all respects, were not so erroneous as to work a reversal:

"6. The Court charges the jury that if they find from the evidence that the defendant exercised such reasonable care, skill and diligence commonly possessed and exercised by other physicians and surgeons engaged in the same line of practice in the general neighborhood and that notwithstanding the exercise of such care, skill and diligence the defendant nevertheless, failed to diagnose the injury to the plaintiff's intestine, then they must find for the defendant.

"13. The court charges the jury that physicians or surgeons do not, in the absence of a contract to that end, insure a successful operation or cure. The reasonable and ordinary care, skill and diligence which is required of them is such as physicians and surgeons in the same general line of practice, ordinarily have and exercise in a like case and under like circumstances. When they have met this test in any given case they have discharged the duty owing, and the fact that unsuccessful results have followed cannot be made the basis of the recovery of damages. *Such is the firmly established rule of our cases. It is sound and salutary. There has never been but one 'Perfect Healer.'*"

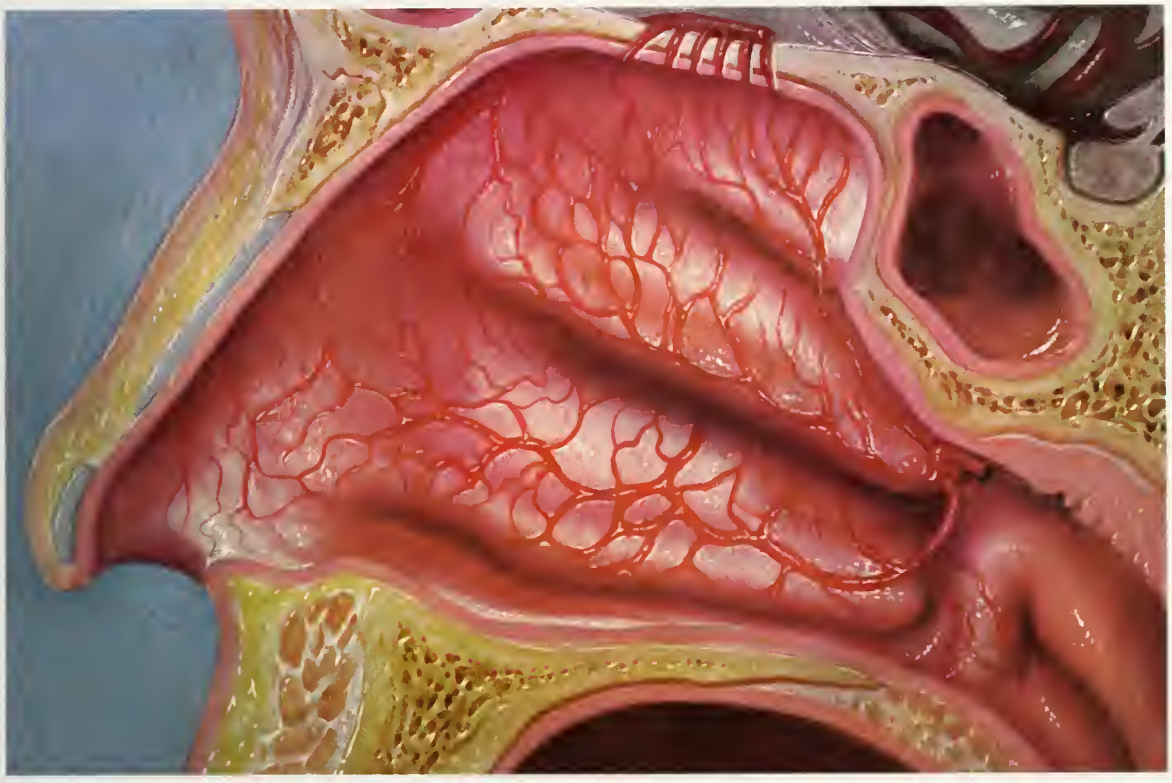
While no statistical count has been made, it would appear that the Supreme Court of Alabama is more likely to reverse the trial court for its failure to grant the defendant's motion for a new trial in medical malpractice cases than in almost any other type of action. The foregoing cases illustrate many instances in which, although the plaintiff apparently proved a prima facie case by at least a scintilla of the evidence and obtained a plaintiff's verdict, reversal followed because such verdict was held to be contrary to the great weight or preponderance of the evi-

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this issue: the cold in pregnancy...

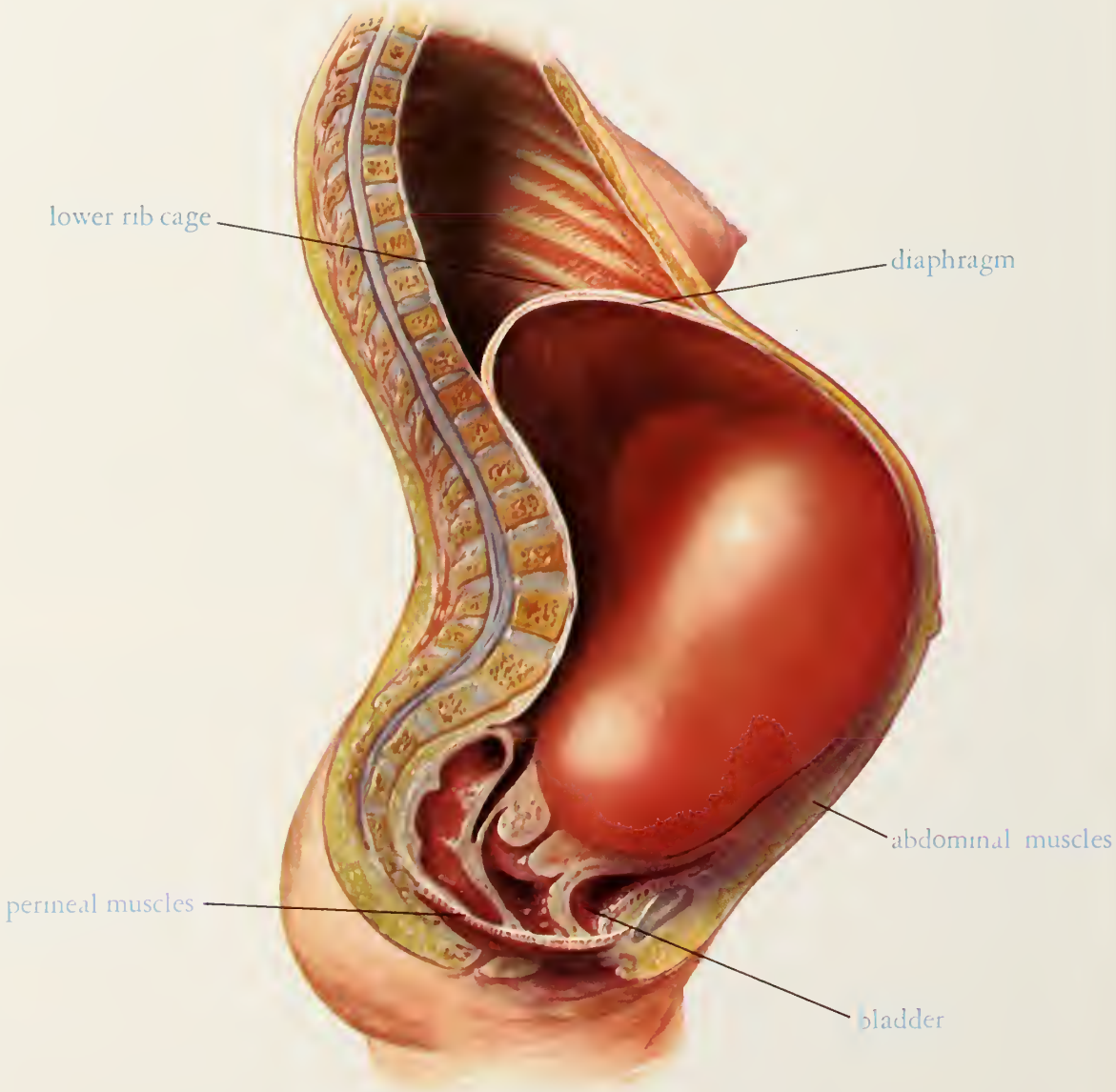
the cold in pregnancy

Frederick W. Goodrich, Jr., M.D.
Senior Obstetrician and Gynecologist, Lawrence and Memorial Hospital, New London, Connecticut

Since pregnancy and the common cold are both ubiquitous, it is not surprising that they often occur at the same time in the same patient. Incidence figures are hard to come by, but the chances are very good that any given pregnant woman will have a cold at some time during the nine months of her gestation. When she does, she will tell you that it is the worst cold she ever had. It seems to last longer and the symptoms are more distressing than they are in the non-pregnant.

For purposes of this discussion, the common cold i considered to be the well-known symptom comple which includes sore throat, stuffy nose, and a cough Febrile states or extension of the disease proces into the lower respiratory tree are not part of th common cold and will not be included in this dis cussion.

The clinical picture of a cold in pregnancy can b confused by a long-known physiological phenome



non. Kiesselbach's area in the nose (on the anterior part of the nasal septum above the intermaxillary bone) becomes engorged, apparently due to hyperemia induced by the increased estrogen level which accompanies pregnancy. The amount of congestion can vary in degree from woman to woman. Some have very little congestion, others will have occasional nosebleeds from this area, still others will have symptomatic congestion to the degree that they will complain of having a "chronic" or constant cold.

Less well recognized is the occurrence of this type of hyperemia in any part of the nasopharyngeal mucosa, again in varying degree. Such swelling often produces a postnasal drip which, the patient will state, is present only when she is pregnant. Patients who do not have symptomatic congestion ordinarily, will find that when they do get a cold, the symptoms last much longer than those of a cold usually do. Occasionally, this hyperemia is responsible for closure of the medial end of the Eustachian tube; such patients will complain of "plugging" of the ears. Inspection of the ear drum will show a depression which confirms the presence of Eustachian closure rather than wax in the canal which is the patient's diagnosis. Symptoms related to this physiological congestion are more apt to occur in heavier smokers or those who have a history of allergic rhinitis, just as are the symptoms of the common cold. And when the cold does occur in pregnancy, the symptoms are worse because of the underlying congestion.

The pregnant woman with a cold is miserable for other reasons, dependent somewhat on her parity and the length of her gestation. As parity increases, so also does the relaxation of the abdominal and perineal musculature. The uterus, lying against a slack abdominal wall, and bearing down on relaxed perineal muscles, acts like a piston when the patient coughs, sneezes, or even blows her nose, pushing down on the bladder. Stress incontinence during colds is almost the rule.

As the length of gestation increases, so does the size of the uterus. As it grows, it pushes the abdominal contents above it and elevates the diaphragm. This results eventually in a lateral displacement of the lower rib cage, often to a point at which the patient will complain of soreness in this area. If such a

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patient has a cold, the coughing and sneezing will exaggerate this soreness. The diaphragmatic restriction caused by the enlarging uterus also makes breathing more difficult, particularly when the patient lies down. A cold compounds this difficulty.

Treating a cold in pregnancy requires two additional considerations. The patient should be told that the symptoms may last longer lest she become discouraged, and she should be reassured that the treatment will not damage the fetus. Although there are still some women who seem blissfully ignorant regarding matters of health (and these need to be cautioned not to take medication recommended by friends), most of our maternity patients are aware of the thalidomide tragedy. These women need constant reassurance that the symptoms of a cold can be treated, and that the medication is safe. Fortunately, many of the drugs which are of benefit have been in use long enough and widely enough so that such a statement can be offered. Occasionally one encounters a patient who is so anxious to avoid medication that she is extremely reluctant to take anything at all. Since cold is self-limited, it seems reasonable enough to give such a patient the choice and not to force drugs on her if she is obviously afraid of taking them.

The most distressing symptom of the common cold is the nasal congestion. This can be mitigated by the use of a decongestant which will help reduce the postnasal drip and the coughing caused by it. The kind of a cough which is described as a "tickling" in the throat and which is apt to occur when the patient goes to bed is usually due to nasopharyngeal congestion rather than inflammation in the lower respiratory tract.

There are many cough mixtures available. Most contain an antihistamine, a decongestant, and a cough "suppressant." Should cough suppression be desirable, it is important to remember not to use both a decongestant tablet and such a cough mixture as the patient would be getting a double dose of the decongestant. With some patients, the placebo effect of a cough syrup may be important and a liquid preparation might be substituted for an oral tablet.

For a sore throat, candy drops or lozenges at frequent intervals are soothing. It is not only unnecessary but unwise to use antibiotic lozenges or drops. The use of antibiotics in an uncomplicated cold is contraindicated and should be scrupulously avoided.

In summary, a cold in pregnancy is more severe and longer lasting. The treatment of the symptoms with local and systemic decongestants will make the patient more comfortable.

Apparently the cold is so common in pregnancy that it has received very little attention in the literature. References are almost non-existent and the few which are available add little to the common knowledge, are out-dated, or are not helpful. Thus the usual bibliography is not appended.



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dence. This is attributable, at least in part, to the fact that in many of such cases almost all of the uncontradicted *expert* testimony favored the defense, and such testimony in such cases has often been held to be controlling.

II. Contributory Negligence and Assumption of Risk

While the customary affirmative defense, such as contributory negligence and assumption of risk, are available in medical malpractice cases sounding in negligence, they are seldom used. This may be due in part because the plaintiff-patient is usually inactive at the time of treatment and has placed himself almost wholly in the hands of the defendant hospital or physician.

The only reported Alabama medical malpractice case found in which assumption of risk or contributory negligence was discussed is *Hester v. Ford*, 221 Ala. 592, 130 So. 203 (1930). The plaintiff, who had suffered a fractured ankle when jumping from a wagon, charged the defendant doctor with negligence in the diagnosis and treatment of his injuries. The defendant pleaded contributory negligence, alleging that the plaintiff had refused to submit to the use of an anesthetic in order to enable the doctor to better examine and treat the fracture. The evidence showed that the doctor had rendered the treatment "out in the country" and had found and splinted a fracture of the tibia or shinbone. He had failed to find or treat a fracture of the fibula, the smaller bone of the leg. There was a verdict and judgment for the defendant, which the Supreme Court affirmed.

In its opinion, the court defined the word *treatment* in this language:

> "In common parlance and often in the law, treatment is the broad term covering all the steps taken to effect a cure of the injury or disease; it includes examination and diagnosis as well as application of remedies."

It would seem, therefore, that an allegation in the complaint of negligent treatment would suffice to cover almost any breach of the physician's duty.

The court then went on to state that neither improper diagnosis nor a lack of diagnosis, alone, would be sufficient to justify a recovery against the defendant, since only improper treatment or lack of treatment could result in injury.

Another probable reason for the dearth of reported Alabama medical malpractice cases involving contributory negligence is that a sick person should not be expected to conform to the same standard of conduct reasonably to be expected from one who is well.[3] In *Cooper v. Providence Hospital*, 272 Ala. 283, 130 So.2d 8 (1961), the complaint alleged that the decedent had been permitted to get up from his bed during the night unattended and had fallen to the floor and had suffered injuries from which he died, all as the result of the negligence of the defendant hospital. Inasmuch as the decedent had been instructed not to leave his bed without assistance and to ring for a nurse if he needed help, your author (who was one of the attorneys defending the case) at first filed a plea of contributory negligence. However, this plea was withdrawn after further consideration was given to the fact that the evidence would be that the decedent was elderly and sometimes irrational and that the effect of this testimony on the jury might cause the plea to "boomerang" against the defendant.

No reported medical malpractice case from Alabama has been found discussing a plea of assumption of risk. This is probably because the heart of the defense of assumption of risk is the plaintiff's consent to the risk. Consent necessitates knowledge. Accordingly, a plaintiff could not assume the risk of any negligence of which he had no knowledge or implied knowledge. It is for this reason that the duty of the doctor to warn the patient of all inherent risks involved in any contemplated procedure (discussed subsequently under the heading "Consent") is so closely intertwined with the defense of assumption

of risk. Thus, in *Hales v. Raines*, 162, Mo. App. 46, 141 S.W. 917 (1911), in which the plaintiff's hand had been burned when x-rays were applied at too close a range, with reference to the defendant's plea of assumption of risk, the Missouri court said this:

"As to such matters, the parties are in no respect on equal footing. Defendant's position through education and experience is one which renders him competent to judge of the probable consequences which may result from the use of the x-ray and to speak with a degree of authority thereon. The plaintiff, a man unlearned with respect to the science of medicine and the use of surgical appliances, must rely upon the judgment of the physician. . . . In other words, though plaintiff should be regarded as having assumed by this express agreement such risks as attend the employment of the x-ray, this agreement essentially implied a careful and skillful application thereof on the part of defendant."

The court here is saying, of course, that while the plaintiff assumed any inherent risk in the proper use of the x-ray, he did not assume the risk of a negligent application of the x-ray because he had no reason to anticipate any such negligent use.

A distinction can be drawn between this holding and that in *Champs v. Stone,* 740 Ohio App. 344, 58 N.E.2d 803 (1944), in which the plaintiff alleged that when he went to the defendant doctor for an injection, the defendant was grossly intoxicated, but that the plaintiff nonetheless submitted to the injection. The court held that since the plaintiff had knowledge of the intoxication but nonetheless submitted to the treatment, he had assumed the risk of any negligence resulting from the doctor's intoxicated condition.

In the unreported case described in Appendix B,[4] *Doe v. Roe Hospital,*[5] the plaintiff, a female patient in the defendant hospital falsely told the nurse on duty that her doctor had told her she could leave the hospital and that she was to be discharged. She was discharged, although this was in violation of the rules of the hospital, which required direct authorization from the doctor to the hospital itself. As the result of this premature discharge, the plaintiff's abdominal incision burst open, necessitating further surgical procedures and additional hospitalization. In that situation, the author, who was defending the hospital, filed not only pleas of the general issue, but also pleas of contributory negligence, assumption of risk and recoupment for the amount of the unpaid hospital bill.

From a purely legal standpoint, if every doctor would thoroughly advise his patient of all inherent risks of every procedure undertaken, and if he would then secure the patient's written consent, expressly referring to all such risks, the defense of doctors' malpractice cases would be greatly simplified. Unfortunately, this is seldom done.

III. Consent

We have previously treated with the consent of the patient-plaintiff, either written or oral, to the medical treatment to which he was subjected by his doctor-defendant as it affords proof of the defense of assumption of risk. However, the Alabama cases have dealt with consent as a separate defense in at least two other types of cases, i.e., first, as a defense to a charge of negligence against the doctor based upon his alleged failure to warn of the possible results or consequences of some surgical or other procedure and, second. as a defense to a charge of assault and battery.

A. As a Defense to a Charge of Failure to Warn

It is a general rule of law that a doctor should advise his patient of the need for the procedure to be followed, its objective, any alternative possibilities that might arise during the procedure and of the inherent risks thereof.[6] In the earliest Alabama case found discussing this, *Robinson v. Crotwell,* 175 Ala. 194, 57 So. 23 (1911), the plaintiff alleged that the defendant doctor operated "without the plaintiff's consent" and, in another count, that the defendant negligently treated the plaintiff. The court stated this:

"In one aspect of his case, plaintiff claimed that defendant caused a dangerous operation to be

(Continued on Page 954)



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(Continued from Page 952)

performed upon him, after assuring him that the operation to be performed would be a mere trifle, as operations go, and would involve no serious consequences. As has been stated, the operation not only failed to relieve plaintiff's ailment, but left behind injurious consequences of its own. If plaintiff's contention in this regard be true, and it had support in his testimony, defendant's conduct would seem to be indefensible. The cases so hold. *Mohr v. Williams,* 95 Minn. 261, 104 N.W. 12, 1 L.R.A. (N.S.) 439, 111 Am. St. Rep. 462, 5 Ann. Cas. 303, and note. But a careful consideration of the evidence leaves us with an abiding conviction that the verdict, if rendered on this aspect of the case, ought not to be permitted to stand."

It is interesting to note that the allegation is not labeled as one of assault and battery (although the court may have considered that the allegation actually contained in the complaint, that the operation was performed without consent, was its legal equivalent), nor was it one of fraud and deceit. In any event, the Supreme Court reversed a judgment for the plaintiff, holding that the verdict in favor of the plaintiff was contrary to the great weight of the evidence and that, accordingly, the defendant's motion for a new trial should have been granted.

The following charges were given at the request of the plaintiff and the court stated that they asserted correct principles of law:

"(1) If a physician or surgeon has taken charge of a patient, and undertaken for reward to furnish hospital and apparatus for the operation, it is his duty to exercise proper care and diligence to furnish reasonably prudent and proper facilities, and he may be liable for any failure so to do, even though he is otherwise careful and competent."

"(2) No matter how skillful or careful a physician or surgeon may be, he has no right to perform a dangerous operation upon an adult person of sound mind without his consent, even if the patient has consented to another and different operation."

"(4) Consent to the performance of one kind of operation would not be consent to the performance of another and different operation."

"(6) No matter how skillful a physician or surgeon may be, he is responsible for his negligence, if any."



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1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



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The failure to warn of the alleged dangers inherent in an operation to remove cataracts was charged by the plaintiff in *Sims v. Callahan,* 269 Ala. 216, 112 So.2d 776 (1959), in language stating that the "defendant did wilfully and falsely represent to plaintiff, with the intent to injure plaintiff, that plaintiff should undergo immediate surgery to remove cataracts. . . ." Other allegations were that the plaintiff did not need such surgery but that, to the contrary, such surgery would have impaired his vision.

The operation was never actually performed, the plaintiff having left the hospital before the scheduled surgery was undertaken. The court did not discuss consent as a separate defense, but affirmed the jury verdict in favor of the defendant, reiterating the general rule stated several times in Alabama, as follows:

"Where there are various recognized methods of treatment the physician is at liberty to follow the one he thinks best, and is not liable for malpractice because expert witnesses give their opinion that some other method would have been preferable."

Knowles v. Blue, 209 Ala. 27, 95 So. 481 (1923), was based upon the alleged negligence of the defendant doctor and also upon his alleged performance of a different operation from that to which the plaintiff had consented. A judgment for the defendants was affirmed, the court stating that it was "for the jury to infer whether or not the plaintiff was sufficiently informed by the defendants, or any of them, of the nature of such an operation, and whether the defendants were authorized to perform the same upon him." This case, and the others discussed under this topic, exemplify the need for all physicians and particularly for surgeons to obtain written consents which clearly set forth what is to be done, the inherent risks thereof and that no successful result is guaranteed. Other helpful language could certainly well be added, but the specified provisions would seem to be essential.

The following charges were given for the defendants and were not commented upon by the court, although they appear to be supported by other Alabama cases:

"B. I charge you that, if a patient voluntarily submits to an operation, his consent thereto will be presumed."

"C. I charge you that, if plaintiff voluntarily submitted to the operation—that is, knew it was about to be performed, and made no objection—his consent is to be presumed, unless he was the victim of a false and fraudulent representation; this last a fact to be made reasonably clear in the evidence."

"D. Unless it is so provided by an express contract, a physician or surgeon does not warrant that he will effect a cure, or that he will restore the patient to the same condition as before the necessity of treatment arose, or that the result of the treatment will be successful."

Roberts v. Wood, 206 F. Supp. 579 (1962), was decided under Alabama law by the United States District Court for the Southern District of Alabama. The complaint (which is not set forth) apparently alleged that the defendant negligently selected an incorrect surgical technique and then negligently performed the surgery. Its allegations were seemingly broad enough to also place in issue the question of whether the surgeon had sufficiently advised the plaintiff of the inherent dangers of the operation. The report shows this:

"First, the plaintiff says she was not sufficiently advised as to the seriousness of the operation. In undertaking to perform the operation, Dr. Wood did not, absent express contractual agreement, thereby become a guarantor of a successful result. *Snow v. Allen,* 227 Ala. 615, 151 So. 468. There is no evidence that he misrepresented the serious nature of the operation or failed to inform the patient of its attendant dangers. I do not mean to suggest that defendant should have told plaintiff of all the hazards involved, including risk of injury to the recurrent laryngeal nerve. Doctors frequently tailor the extent of their pre-operative warnings to the particular patient, and with this I can find no fault. Not only is much of the risk of a technical nature beyond the patient's understanding, but the anxiety, apprehension, and fear generated by a full disclosure thereof may have a very detrimental effect on some patients."

There was also an allegation of abandonment. As to this, the court cited 57 A.L.R.2d 434 to the effect that any legal abandonment must have been brought about by the *uni-*

lateral act of the physician, and found that there was no proof of this. It further held that negligence was not to be inferred from the injury, that res ipsa loquitur did not apply and entered a judgment for the defendant.

It is questionable whether the court's dictum, indicating that a doctor might not need to warn his patient about inherent risks in an anticipated procedure because of possible apprehensions or fear by the patient should be relied upon with reference to different facts than those of *Roberts,* in view of certain statements in the Alabama decisions and in decisions from other jurisdictions. While there is some contra authority,[7] the safer legal procedure would be for the surgeon to inform his patient about all inherent risks, even if to do so would accentuate his patient's worries and concern.

B. As a Defense to a Charge of Assault and Battery

The classical defense to a charge of assault and battery is the alleged consent of the plaintiff to the trespass. In the leading case of *Donald v. Swann,* 24 Ala. App. 463, 137 So. 178 (1931), certiorari denied at 137 So. 181, the first count of the complaint charged negligent malpractice and the second charged trespass to the person or assault and battery, in that the defendant had performed a spinal puncture upon the plaintiff without consent. The Court of Appeals reversed the verdict and judgment of the trial court in favor of the plaintiff because of the court's failure to give this charge at the request of the defendant:

"The court charges the jury that if a patient voluntarily submits to an operation, her consent thereto will be presumed."

The report further shows this:

"It is laid down as a general rule, and supported by unquestioned authority, that every human being of adult years and sound mind has a right to determine what shall be done with his own body, and any operation performed, even by a surgeon acting in good faith, which is done without the consent and over the protest of the party operated on, is an assault and battery for which an action will lie."

In *Barfield v. Southlands Infirmary,* et al, 191 Ala. 553, 68 So.2d 30 (1915), suit was brought against both the hospital and the surgeon who amputated one of the plaintiff's legs. The plaintiff testified that not only did she not give her consent but, further, that she had not been physically competent to have done so. The defendant surgeon (the hospital had received the general affirmative charge), in whose favor a verdict had been rendered by the trial court, introduced evidence showing that the plaintiff's mother had consented to the amputation, stating this:

"It scarcely need be debated that plaintiff, if capable of intelligent consideration of the question involved, had the absolute moral and legal right to determine the issue for herself, as defendant contends on the strength of his evidence she in fact did, and an operation of this capital character, performed without regard to her wishes in such case, could not be justified in any forum of law or conscience. But considering plaintiff's contention as to her condition at the time of her alleged consent, the evidence as to which on the part of plaintiff she seems to overlook in her argument for a reversal on this point, considering the incapacity she claims to have labored under at the time, and the extreme urgency of the case as shown by the expert evidence, if believed, it was proper for defendant to consult with the mother—and not conceivably improper in any event—and to act upon her consent as the implied consent of plaintiff."

"Defendant could not, of course, compel plaintiff to submit to an operation; but if she voluntarily submitted to the operation, that is, knew it was about to be performed and made no objection, her consent was to be presumed, unless she was the victim of a false and fraudulent representation; this last a fact to be made reasonably clear in the evidence."

The court then upheld the trial judge's oral charge to the effect that the defendant had the right to amputate the plaintiff's limb without her consent if an emergency not produced by the defendant existed requiring such amputation.

While the report does not show the plaintiff's age, it does indicate that she was female and unmarried. From the remarks of the court, she was apparently an adult. This case is the only Alabama malpractice case found

discussing a consent given or not given by someone other than the adult patient and also discussing the right of a physician to operate without consent when there is an emergency necessitating such a procedure. While the latter holding is in accord with that of many jurisdictions and is probably the law, the former holding may well be limited to the facts of this particular case.

IV. Charitable Immunity

The leading case and the first case in Alabama involving the doctrine of charitable immunity as applied to hospitals is *Tucker v. Mobile Infirmary Ass'n.*, 191 Ala. 572, 68 So. 4 (1915). It has been cited often for the proposition that the doctrine of charitable immunity does not exist in this state. See, for example *Laney v. Jefferson County*, 249 Ala. 612, 32 So.2d 542 (1947), where the court referred to *Tucker* in the following language:

"It was there held that being a charitable hospital, operated not for profit or gain, did not exempt it from liability for negligence."

However, a careful analysis of *Tucker* shows that the foregoing statement is valid only in part, for the court in *Tucker* expressly reserved for future decision the question of whether a charitable hospital is exempt from liability for negligent injury to a patient who receives the benefit or "bounty" of the charity. Accordingly, it is the author's opinion that whether a charitable hospital is immune from suit by a non-paying patient is undecided in Alabama.

The plaintiff in *Tucker* sued the Mobile Infirmary for damages for personal injury sustained while he was being treated at the hospital. The complaint contained two counts, the first of which alleged that "For a reasonable compensation, defendant undertook and promised to properly nurse and care for plaintiff, preparatory to and during a surgical operation . . ." and that in the process of this care, the plaintiff was scalded by reason of the negligence of one of the nurses employed by the defendant. The second



count was essentially the same, with the additional averment that plaintiff's injuries resulted because the defendant negligently entrusted the care of the plaintiff to an incompetent nurse.

The defendant filed two pleas, alleging that it was a charitable institution and that it exercised due care in the selection and retention of the nurse referred to in the complaint. Plaintiff's demurrer to these pleas was overruled and replications were filed. Plaintiff took a non-suit because of the adverse rulings on the pleadings and appealed.

The court summarized defendant's position in the following language:

"In short, the defense is that, having exercised due care in the selection and retention of the nurse, the defendant is exempt from *all* liability to the plaintiff, because of the fact that it is an institution organized, not for profit, but for charitable purposes." (Emphasis added)

It then undertook a consideration of the three theories upon which the doctrine of charitable immunity is based: (1), the "trust fund theory," e.g., that the funds of the charity are held in trust for the particular charitable purpose, that the payment of damages for the negligence of servants of the charity is not a contemplated purpose of the trust, and that any diversion of funds to the payment of such damages would be a breach of the trust; (2), that the rule of respondeat superior does not apply to a charity for the reason that the agents and employees are not engaged in work which is for the benefit or profit of the charity (A charitable master, therefore, would not be liable for the torts of its servant); and (3), the "implied assent theory," i.e., "one who accepts the benefit of charity must be taken impliedly to have assumed the risk of negligent injuries caused to him by servants who have been properly employed or retained in his service, or to have waived liability of a charitable institution for injuries so received."

The court considered and rejected the first two theories and then, with reference to the "implied assent" theory, stated that it was the theory upon which the more recent and best considered cases appeared to rely and quoted at length from such cases. The report shows that it was then held to be unnecessary to decide the applicability of this doctrine in Alabama:

"*If it be conceded (without deciding, as unnecessary at this time) that the principle is logical and well-founded, we are of the opinion that it could not be given application in this case as presented by this record. The complaint alleges that the plaintiff agreed to pay a reasonable compensation;* that is, such sum as is reasonable to be paid for the services rendered. She has depended upon no charity, she sought none, but was to pay a reasonable price for what she received. Had she been a dependent upon another's bounty, either to a great or small degree, there might be some plausibility in the argument that it would not lie in her mouth to say that the institution should be held to strict accountability for the negligent acts of its servants, in administering the charity which she herself has sought." (Emphasis added)

The question remains, how would the Supreme Court of Alabama today decide the question which it reserved for future decision over fifty years ago? In *Alabama Baptist Hospital Board v. Carter,* 226 Ala. 109, 145 So. 443 (1932), the court made the passing comment that ". . . the doctrine of waiver by acceptance of benefits is applicable only, *if at all,* to patients receiving benefits." (Emphasis added) And in at least one case, *Birmingham Baptist Hospital v. Branton,* 216 Ala. 326, 113 So. 79 (1927), an unsuccessful attempt was made to have the court decide the question. The complaint averred that the defendant "for a reward" undertook to care for the plaintiff. One of defendant's pleas alleged that it was operated exclusively for charity and that the plaintiff did not pay or offer to pay, nor was she charged any reasonable compensation for the services rendered, and that the only charge made was a nominal sum. Plaintiff's demurrer to this plea was sustained. The court stated that the sustaining of the demurrer to the plea was without error, since the question of whether the plaintiff was a charity patient (which contradicted the allegations of the complaint) could be decided under the general issue. It then held that the charges made by the

(Continued on Page 964)

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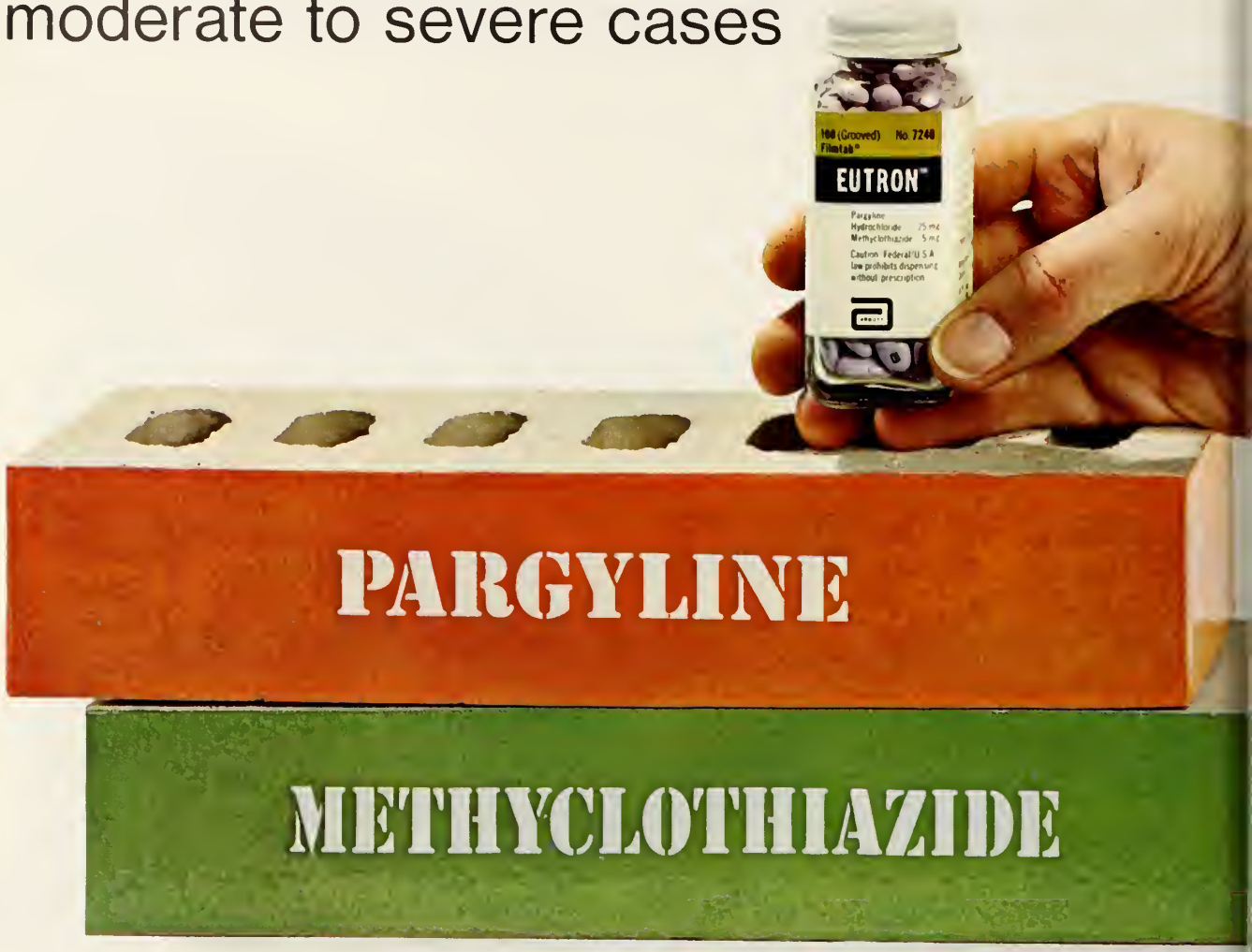
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Each tablet contains Methyclothiazide 5 mg. with Deserpidine 0.25 mg. or 0.5 mg

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains Pargyline Hydrochloride 25 mg. with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amendable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-TRADEMARK

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅛ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

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ABBOTT

(Continued from Page 958)

hospital afforded it reasonable compensation for the services rendered, the effect of which was to say that the plaintiff was not a charity patient.

It thus appears that the question of charitable immunity is still an open one in Alabama today.

V. Governmental Immunity

The Alabama law is clear that the operation of a public hospital—whether created by the state itself, a county or some combination of governmental bodies—is a governmental function which enables the hospital to avail itself of the defense of governmental immunity. There are cases dealing with institutions and corporations created and run by the state, a county and a county in conjunction with a city. These cases stress that the operation of the public hospital to administer care and medical attention to the needy on a charitable basis is a governmental rather than a proprietary function. Various arguments have been presented in the Alabama cases to support the view that immunity should not exist, but these arguments have been rejected.

A. State Hospital

In *White v. Alabama Insane Hospital*, 138 Ala. 479, 35 So. 454 (1903), the court concluded that the Alabama Insane Hospital, which was an institution incorporated under special legislation exclusively for charitable purposes, was immune. The conclusion was based upon the institution's being a mere agency of the state. The court noted that the hospital existed for the benefit of the public, that it had neither stockholders nor stock, that it was not created for profit, and that no one's rights would be infringed if the state were to provide that some other agency should control and manage the institution. The court also observed that immunity existed in spite of the general provision in the enabling legislation that the institution could be sued.

B. County Hospitals

Moore v. Walker County, 236 Ala. 688, 185 So. 175 (1938), dealt with a hospital created by a local act which allowed Walker County to maintain a hospital primarily for charitable purposes although charges could be made when appropriate to defray expenses. The court noted that the county was "an arm of the state" and therefore to some extent different from a municipal corporation. Following *White*, supra, the conclusion was reached that the operation by the county of the hospital to care for the needy was a governmental function in spite of the fact that some patients paid to defray expenses. Of interest is the statement made by the court that the failure of the legislature to provide specifically that aggrieved persons should be able to bring suit almost conclusively indicated that immunity existed.

Laney v. Jefferson County, 249 Ala. 612, 32 So.2d 542 (1947), dealt with the Jefferson Hospital, which was operated by Jefferson County, and the question under consideration by the court was whether the operation of the hospital was a governmental or proprietary function. The legislation under which the hospital was created was reviewed by the court. The observation was made that this legislation "intended to authorize counties to provide for charitable hospitalization for those who are unable to provide it for themselves" and the court observed that the mere receipt of pay from certain patients to defray expenses did not make the operation of the hospital a proprietary endeavor. The court relied heavily upon the *Moore* case, supra, and held that there was immunity.

In *Garrett v. Escambia County Hospital Board*, 266 Ala. 201, 94 So.2d 762 (1957), the court dealt with the D. W. McMillan Memorial Hospital which was operated by the Escambia County Hospital Board. The board was created under an act (Act 46, Acts of 1949, Regular Session, p. 68) which authorized the various county commissions to approve public hospital corporations after appropriate petition had been made by inter-

ested citizens. Also, the board had been designated by Escambia County as the agency of the county to acquire, construct, equip, operate and maintain public hospital facilities (under Act. 640, Acts of 1949, Regular Session, p. 981). In concluding that the hospital was immune, the following statement was made by the court:

"The rule is firmly established in this state that where a county, in accordance with express legislative authority, operates a hospital where its needy may receive care and medical attention, it is performing a governmental duty and, hence, as an arm of the state it is immune from suit by indigent or pay patients for the negligence of its officers or employees unless the act authorizing and empowering the county to operate the hospital expressly makes the county subject to suit for the torts of the officers, agents or servants entrusted with the operation and management of the hospital."

The court also observed that the general provision that the corporation may be sued did not deprive it of immunity from suit based upon negligence so long as the corporation was engaged in a governmental function.

In Clark v. Mobile County Hospital Board, 275 Ala, 26, 151 So.2d 750 (1963), the hospital was the Mobile General Hospital operated by the Mobile County Hospital Board; it received both indigent and paying patients, but it operated on a non-profit basis. Relying heavily upon the *Garrett* case, supra, the court concluded that immunity existed. In reaching its holding the court noted that the "operation by a county of a hospital where needy citizens may receive care and medical attention is the performance of a governmental function" and it also noted that the provision in the legislation creating the Board that it may "sue and be sued" did not destroy immunity.

C. County and City Hospitals

Thompson v. Druid City Hospital Board, ... Ala. , 184 So.2d 825 (1966), dealt with the Druid City Hospital, which the court described as being "an agency of the city of Tuscaloosa and county of Tuscaloosa." According to the court there was "no dispute that the Board is a public agency entitled under the (enabling) act to the usual immunities;" the plaintiff conceded that *Clark*, supra, accurately stated the law. The sole question was whether immunity was affected by the hospital's having procured liability insurance, and the court concluded that the immunity was not affected but still existed.

D. General Requisites for Immunity

From the foregoing cases, two general requisites for the hospital's being able to avail itself of governmental immunity can be formulated: (1) There must be a governmental connection, and (2) the operation of the hospital must not be "proprietary."[8]

The *White* case, supra, sets forth several criteria for determining whether the institution is an agency of a governmental body; the court in that case noted that the corporate institution had neither stock nor stockholders, that it was not created for profit but was solely a public benefactor with the beneficiaries being the people of the state, and that no one's rights would be infringed if the management of the hospital were entrusted to another agency or entity. These criteria will be helpful in determining whether the necessary governmental connection exists in any given case.

To some extent, the formula used by the court to determine whether the operation of the hospital is "proprietary" will shed light upon whether the necessary governmental connection exists. The formula as stated in the *Garrett* case, supra, is that "where a county, in accordance with express legislative authority, operates a hospital where its needy may receive care and medical attention, it is performing a governmental duty. . . ." The *Laney* case, supra, indicates that the hospital will be a proprietary business if it is operated to make a profit. To some extent, then, the public purpose and the non-proprietary purpose are similar.

E. Factors Which Do Not Affect Governmental Immunity

1. Governmental immunity is not affect-

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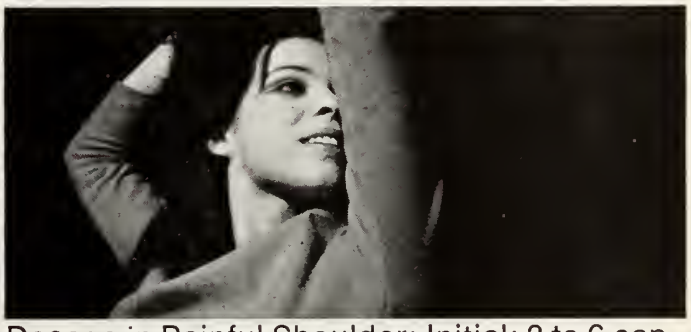
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ntraindications: Edema; danger of cardiac ompensation; history or symptoms of pep- culcer; renal, hepatic or cardiac damage; story of drug allergy; history of blood dys- sia. The drug should not be given when the ient is senile or when other potent drugs are n concurrently. Large doses of Butazolidin are contraindicated in glaucoma.

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cautions: Before prescribing, carefully ct patients, avoiding those responsive to tine measures as well as contraindicated ients. Obtain a detailed history and a com- te physical and laboratory examination, in- ding a blood count. The patient should not ceed recommended dosage, should be sely supervised and should be warned to continue the drug and report immediately if er, sore throat, or mouth lesions (symptoms blood dyscrasia); sudden weight gain (water ention); skin reactions; black or tarry stools other evidence of intestinal hemorrhage cur. Make regular blood counts. Discontinue drug immediately and institute counter- asures if the white count changes signifi- ntly, granulocytes decrease, or immature ms appear. Use greater care in the elderly d in hypertensives.

verse Reactions: The most common are usea, edema and drug rash. Swelling of the kles or face may be minimized by withhold- dietary salt, reduction in dosage or use of uretics. In elderly patients and in those with pertension the drug should be discontinued h the appearance of edema. The drug has en associated with peptic ulcer and may re- tivate a latent peptic ulcer. The patient should be instructed to take doses immediately before or after meals or with milk to minimize gastric upset. Mild drug rashes frequently subside with reduction of dosage. However, rash accompanied by fever or other systemic reactions usually requires withholding medication. Purpuric rash has also been reported. Agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome, or a generalized allergic reaction similar to serum sickness may occur and require permanent withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.



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(Continued from Page 965)

ed by the presence of the general provisions in the enabling legislation that the hospital may "sue and be sued." *White*, supra; *Garrett*, supra; *Clark*, supra.

2. Governmental immunity is not affected by the plaintiff's being a paying patient or by the hospital's having paying patients to defray expenses. *Moore*, supra; *Laney*, supra; *Garrett*, supra; *Clark*, supra.

3. Governmental immunity is not affected by the hospital's having procured liability insurance. *Thompson*, supra.

VI. Statute of Limitations

A. Doctors

Title 7, Section 25(1) of the *Code of Alabama* of 1940, as last amended, reads as follows:

"§25(1). Same; actions against physicians and surgeons for malpractice.—All actions against physicians and surgeons, and dentists for malpractice, error, mistake, or failure to cure, whether based on contract or tort, must be commenced within two years next after the act or omission or failure giving rise to the cause of action, and not afterwards. Provided that if the cause of action is not discovered and could not reasonably have been discovered within such period, then the action may be commenced within six months from the date of such discovery or the date of discovery or the date of discovery of facts which would reasonably lead to such discovery, whichever is earlier, provided further and in no event may the action be commenced more than six years after such act."

That part of the preceding statute which allows the plaintiff to bring his action within six (6) months from the date of discovery of facts which should have caused him to know of his cause of action, subject to an overall limitation of six years, was probably designed to avoid the effect of cases such as *Hudson v. Moore*, 239 Ala. 130, 194 So. 147 (1940). The complaint alleged that the defendant surgeon performed a gall bladder operation upon the plaintiff in 1923 and left in her body a gauze sponge, which consequently caused many complications and ail-



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ments. Within a year of the filing of the action in 1938, the plaintiff discovered the sponge and brought suit. The statutes of limitation of one year and of six years were pleaded. The defendant rendered no further treatment to the plaintiff after the operation. The case went up on the pleadings and the sole inquiry was whether the plaintiff had alleged sufficient facts to show a fraudulent prevention by the defendant of the plaintiff's discovery of her cause of action. The court held, in part, that there was no allegation that the defendant ever knew that he had left the sponge in the operative wound and, hence, no facts were alleged sufficient to toll the statutes.

Another case in which the statute of limitations was discussed is *Sellers v. Noah,* 209 Ala. 103, 95 So. 167 (1923). While Title 7, Section 25(1) has made the apparent holding of this case with reference to the statute of limitations moot, it is important for other reasons.[9] The complaint contained three counts. The first charged breach of the express terms of the contract of employment; the second stated that there was a contract of employment and that the defendant "negligently left in the body of the plaintiff . . . a portion of a needle;" and the third, that there was a contract of employment and that the defendant "did not use that degree of care, skill and diligence that physicians and surgeons . . . ordinarily exercise in like cases." The Supreme Court held that the one year statute of limitations did not apply, because "The counts declare upon the breach of the surgeon's contract." The court further said this:

"In operating upon or treating a patient a surgeon's duty is to bring to the service and to exercise 'such reasonable care, diligence, and skill as physicians and surgeons in the same general neighborhood, in the same general line of practice, ordinarily have and exercise in a like case. Neither a physician nor a surgeon is an insurer of the successful issue of his treatment or service. *They are responsible either ex contractu or ex delicto* for failure to meet the exactions of the duty stated.' "

It may be questioned whether the foregoing is a correct statement of the law, because it is contrary to the vast majority of the Alabama cases holding, as was stated in the later case of *Waters v. American Casualty Company of Reading, Pennsylvania,* 261 Ala. 252, 73 So.2d 524, this:

"When the contract does not in terms require reasonable care in doing the act stipulated to be done, the law imposes a duty—but does not imply a contract—to exercise due care in doing the act; and, therefore, when negligence exists in doing that act, an action in tort only is available because there is no express or implied contract which is breached."

See, also, *Vines v. Crescent Transit Company,* 264 Ala. 1114, 85 So.2d 436; *Mobile Life Insurance Co. v. Randall,* 74 Ala. 170, and *March v. Southern Airways,* 316 F. 2d 91, a Fifth Circuit Case construing Alabama law as understood by that court.

An interesting comment on the question of whether there is an implied warranty or contract by a physician that he will use that same degree of care, skill and diligence as used by other physicians in the neighborhood similarly employed, merely by entering into a contract of employment, is found in

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Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

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Broyles v. Brown Engineering, 275 Ala. 35, 151 So.2d 767 (1963). The Supreme Court there held that there was an implied warranty from the defendant, an incorporated group of civil engineers, that the plans and specifications prepared by it would reasonably accomplish the purposes for which they were intended, although there was no express contract to that effect. The court then distinguished between the situation posed in *Broyles* and implied warranties involving other professions, such as doctors, lawyers and architects.

B. Hospitals

A recent case in which the point was squarely considered, although it involved a hospital and not a doctor, is *Garig v. East End Memorial Hospital*, ... Ala. , 182 So.2d 852 (1966). After the one year statute of limitations had run, suit was filed alleging that the plaintiff contracted with the hospital for general hospital care and treatment and that the defendant breached this contract by turning the plaintiff in a rough manner, ". . . which conduct was not the usual care and treatment furnished by defendant to patients in said hospital."

In holding that the one year statute of limitations was applicable, even though the complaint attempted to sound in contract, the court cited *Waters v. American Casualty Company of Reading, Pa.*, supra, and other cases, concluding in this fashion:

> "The alleged contractual obligation in each count is 'to furnish to plaintiff general hospital care and treatment.' There is no averment of any specific terms in the contract requiring the exercise of reasonable care in performing the contract. In the absence of express terms to this effect in the contract, such terms will not be implied. *Waters v. American Casualty Co.*, supra.
>
> In effect each count asserts that the defendant was engaged in performing the contract at the very time that plaintiff was injured by turning her in bed, clearly a breach of an implied non contractual duty not to injure the plaintiff—which as stated in *Vines*, supra, is the duty 'not to negligently cause her to be injured in performing the contract (a breach of which is actionable ex delicto).'"

In view of *Garig* and the general rule expressed by the Alabama cases as above indicated, despite *Sellers v. Noah*, supra, it seems to the author that, where the contract does not in express terms require that the services rendered will be provided carefully or with that same degree of care as is used by other hospitals or physicians similarly employed in the same general neighborhood, any action for breach of the implied *duty* to use such care must sound in tort rather than in contract, and, in the absence of trespass to the person (discussed below) or a special statute of limitations, such as has been set forth above, would be governed by the one year statute.

Under *L & N RR v. Johns*, 267 Ala. 261, 101 So.2d 265 (1958) and *Doucet v. Middleton*, 328 F.2d. 97 (5th Cir. 1964), the applicable statute of limitations of an action sounding in direct trespass is apparently six years, in the absence of any other special statute. If proof of the trespass were that it was committed by an agent or servant of a defendant corporate hospital, which trespass has not been authorized or ratified, while such proof would probably suffice under Title 7, Section 217 (1), the case made out against the corporate defendant would then be one of trespass on the case rather than of trespass involving direct force. If, so the applicable statute of limitations would then be one year against the corporate defendant, unless the ambiguous language of Title 7, Section 217 (1), is ultimately construed to change this to six years. Said section reads as follows:

> "In any civil action it shall be permissible to allege in any pleading that any party or parties committed an act, and proof that any such party or parties committed such act by or through an agent, servant or employee acting within the line and scope of his employment shall be sufficient proof of such allegation, subject, however, to the right of the party or parties against whom such testimony is offered to thereupon plead the statute of limitations which might have been applicable to the case made by the evidence offered."

Conclusion

While many medical malpractice claims are justified, all too often they have no more

legal foundation than the patient's disappointed expectations. Unfortunately, the consequences of any such accusation, even though unfounded, are seriously detrimental to the defendant's professional reputation and financial well-being. There is thus thrust upon the lawyer who is consulted by a client potentially interested in pressing a claim of malpractice an obligation to determine the validity of such claim and not to institute a "nuisance" suit. Similarly, there is thrust upon the lawyer retained to defend any such action the added responsibility of knowing that his client's professional future may well depend upon his efforts in contesting such a claim with the highest degree of skill and energy at his command.

Table of Cases

APPENDIX A

The following is a list of the reported Alabama cases involving malpractice suits against doctors: *McDonald v. Harris,* 131 Ala. 359, 31 So. 548 (1901); *Carpenter v. Walker,* 170 Ala. 659, 54 So. 60 (1910); *Hamrick v. Shipp,* 169 Ala. 171, 52 So. 932 (1910); *Shelton v. Hacelip,* 167 Ala. 217, 51 So. 937 (1910); *Robinson v. Cotwell,* 175 Ala. 194, 57 So. 23 (1911); *Barfield v. South Highland Infirmary,* 191 Ala. 553, 68 So. 30 (1915); *Talley v. Whitlock,* 199 Ala. 28, 73 So. 976 (1917); *Hancock v. Hullet,* 203 Ala. 272, 82 So. 522 (1919); *Horn v Pope,* 205 Ala. 127, 87 So. 161 (1920); *Knowles v. Blue,* 209 Ala. 27, 95 So. 481 (1923); *Sellers v. Noah,* 209 Ala. 103, 95 So. 167 (1923); *Moore v. Smith,* 215 Ala. 592, 111 So. 918 (1927); *Woodlawn Infirmary v. Byers,* 216 Ala. 210, 112 So. 831 (1927); *Carraway v. Graham,* 218 Ala. 453, 118 So. 807 (1928); *Fairfax v. King,* 21 Ala. App. 306, 107 So. 722 (1926); *Carraway v. Smith,* 218 Ala. 412, 118 So. 758 (1928); *Peck v. Henderson,* 22 Ala. App. 541, 118 So. 258 (1928); *Dabney v. Briggs,* 219 Ala. 127, 121 So. 394 (1929); *McKinnon v. Polk,* 219 Ala. 167, 121 So. 539 (1929); *Moore v. Holroyd,* 219 Ala. 392, 122 So. 349 (1929); *Thaggard v. Vafes,* 218 Ala. 609, 119 So. 647 (1929); *Torrance v. Wells,* 219 Ala. 384, 122 So. 322 (1929); *Hester v. Ford,* 221 Ala. 592, 130 So. 203 (1930); *McTyeire v. McGaughy,* 222 Ala. 100, 130 So. 784 (1930); *Donald v. Swann,* 24 Ala. App. 463, 137 So. 178 (1931); *Jackson v. Burton,* 226 Ala. 483, 147 So. 414 (1933); *Snow v. Allen,* 227 Ala. 615, 151 So. 468 (1933); *Stephens v. Williams,* 226 Ala. 534, 147 So. 608 (1933); *Hudson v. Moore,* 239 Ala. 130, 194 So. 147 (1940); *Ingram v. Harris,* 244 Ala. 246, 13 So.2d 48 (1943); *Piper v. Halford,* 247 Ala. 530, 25 So.2d 264 (1946); *Watterson v. Conwell,* 258 Ala. 180, 61 So.2d 690 (1953); *Pappa v. Bonner,* 268 Ala. 185, 105 So.2d 87 (1958); *Kessler v. Kelly,* 39 Ala. App. 543, 104 So.2d 767 (1958); *Sims v. Callahan,* 269 Ala. 216, 112 So.2d 776 (1959); *Roberts v. Wood,* 206 F. Supp. 579 (1962); *Bush v. Stanton,* 273 Ala. 615, 143 So.2d 621 (1962); *Langdon v. Miller,* 276 Ala. 195, 160 So.2d 479 (1964); *Hatcher v. Camp,* 187 So.2d 232 (1966).

APPENDIX B

Following is a list of the reported malpractice cases against hospitals. In some of these cases, the attending or treating physicians are joined as a codefendant: *Tucker v. Mobile Infirmary Association,* 191 Ala. 572, 168 So. 4 (1915); *Birmingham Infirmary v. Coe,* 206 Ala. 687, 91 So. 604 (1921); *Gadsden General Hospital v. Bishop,* 209 Ala. 272, 96 So. 145 (1923); *Norwood Hospital v. Jones,* 214 Ala. 314, 107 So. 858 (1926); *Woodlawn Infirmary v. Byers,* 216 Ala. 210, 112 So. 831 (1927); *Birmingham Baptist Hospital v. Branton,* 216 Ala. 326, 113 So. 79 (1927); *Birmingham Baptist Hospital v. Branton,* 218 Ala. 464, 118 So. 741 (1928); *Elders v. Ralls Sanitarium,* 219 Ala. 298, 122 So. 41 (1929); *Norwood Hospital v. Brown,* 219 Ala. 445, 122 So. 411 (1929); *Birmingham Baptist Hospital v. Crews,* 229 Ala. 398, 157 So. 224 (1934); *South Highlands Infirmary v. Galloway,* 233 Ala. 276, 171 So. 205 (1936); *Mobile Infirmary v. Eberlein,* 270 Ala. 360, 119 So.2d 8 (1960); *Cooper v. Providence Hospital,* 272 Ala. 283, 130 So.2d 8 (1961); *South Highlands Infirmary v. Camp,* 279 Ala. 1, 180 So.2d 904 (1965); and *Garig v. East End Memorial Hospital,* 182 So.2d 852 (1966).

References

1. While the earlier case of *McDonald v. Harris,* 131 Ala. 359, 31 So. 548, is cited in *Shelton* as authority for the general rule of the standard of care of a physician, *McDonald* is not a malpractice case, but is one in which the doctor sued for the value of his medical services.

(Continued on Page 974)



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Indications: Tuinal is indicated for prompt and moderately long-acting hypnosis. It is not suitable for continuous daytime sedation.

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Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.



Dosage: 50-200 mg. (¾-3 grains) at bedtime.

[031767]

Additional information available to physicians upon request.
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Lilly

(Continued from Page 971)

2. *Carraway v. Graham*, 218 Ala. 453, 118 So. 807; *New York Life Insurance Co. v. Horton*, 235 Ala. 626, 180 So. 277; *Provident Life & Accident Insurance Co. V. Nelson*, 263 Ala. 700, 84 So.2d. 130.

3. *Williams v. Marini*, 105 Vt. 11, 162 Atl. 796 (1932).

4. Appendix B was originally an attachment to this paper, which was presented at the 1966 meeting of the Alabama Circuit Judges' Association.

5. Fictitious names have been used, although the facts of the case have been unchanged.

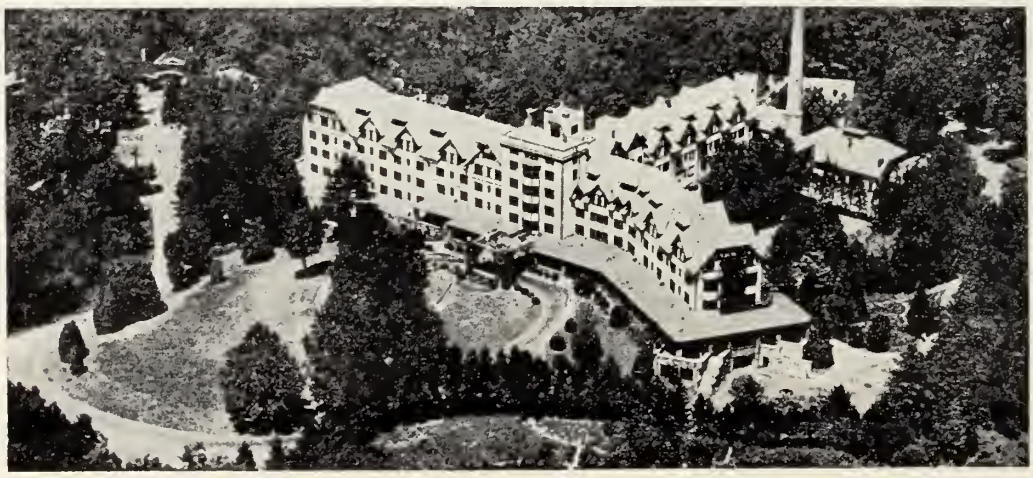
6. *Trial of Medical Malpractice Cases* by Louisell & Williams, Sec. 218.

7. See Lund, "The Doctor, the Patient, and the Truth," 19 *Tenn. Law Review* 344 (1946), and Smith, "Therapeutic Privilege to Withhold Specific Diagnosis from Patient Sick with Serious or Fatal Illness," 19 *Tenn. Law Review* 349 (1946).

8. Note that the status of the *hospital* itself is the determining factor with reference to governmental immunity, whereas it is the nature of the *individual relationship* of the plaintiff-patient with the hospital which is important with reference to charitable immunity. That is, begging the basic question of its availability under any circumstance, a private hospital, even though operated for a profit, would be entitled to invoke the defense of charitable immunity if the particular plaintiff-patient happened to be a charity patient.

9. If the plaintiff can maintain an action for breach of an implied contract by the doctor to render "ordinary care," he can *probably* avoid the effect of the affirmative tort defenses, such as contributory negligence and assumption of risk.

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Wm. Ray Griffin, Jr., M. D.
Robert A. Griffin, M. D.

Mark A. Griffin, Sr., M. D.
Mark A. Griffin, Jr., M. D.

Alabama Department of Public Health

RECOMMENDATION OF THE PUBLIC HEALTH SERVICE ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES

The Public Health Service Advisory Committee on Immunization Practices meeting on October 12, 1967, reviewed all available data on the recently developed live attenuated mumps virus vaccine and prepared the following recommendations on its use in public health and preventive medical programs. Publication of the recommendations has been planned to coincide approximately with vaccine licensure when the comments would be most pertinent. (Reprinted from MMWR, Vol. 16, No. 51, week ending December 23, 1967.)

MUMPS VACCINE

Introduction

A live attenuated mumps virus vaccine* has recently become available for general use. It is, therefore, appropriate to describe the circumstances under which this vaccine might be considered for use.

Mumps, one of the common communicable diseases, is observed with greatest frequency in young school-age children. However, approximately 15 per cent of reported cases occur after the onset of puberty. Overt evidence of central nervous system disease with sequelae is rare, although meningeal involvement appears to be common. Orchitis has been reported in up to 20 per cent of the clinical mumps cases occurring in post-pubertal males. Symptomatic involvement of other glands and organs is observed less frequently.

All naturally acquired mumps infections, including the estimated 30 per cent which are subclinical, confer durable immunity.

Live Mumps Vaccine

Live mumps vaccine is prepared in chick embryo cell culture. It produces an inapparent, noncommunicable infection following administration. Febrile reactions and mumps-like symptoms have not been associated with the vaccine.

More than 95 per cent of susceptible vaccines develop detectable antibodies after vaccination, although titers are lower than those induced by natural infection. The pattern of antibody persistence parallels that seen following clinical mumps although at a lower level. The long-term duration of antibody is unknown at the present time; individuals have been observed for only two years following vaccination because the vaccine is a recent development.

Excellent protection against naturally occurring mumps has been documented in vaccinees for the first year after vaccination.

* Official name: Mumps virus vaccine, live.

† The single individual dose recommended by the manufacturer should be employed.

§ Inactivated mumps vaccine and mumps hyperimmune globulin are of questionable effectiveness under these circumstances.

Limited data on natural exposure during the second year indicate continuing protection.

Recommendations for Vaccine Use

Live mumps vaccine may be considered for use in children approaching puberty, in adolescents, and in adults, especially males, if they have not had mumps.† The vaccine is not specifically contraindicated for younger children, but until more information on the duration of immunity is available, the vaccine is not recommended for routine use. Furthermore, mumps immunization should not be allowed to compromise the effectiveness of public health programs of already established importance.

Age

Live mumps vaccine should not be administered to children less than 12 months of age because of the possible persistence of interfering maternal antibody.

High Risk Groups

Epidemic mumps can be particularly disruptive to normal routine in large groups of susceptible individuals. Children living in institutions, for example, might benefit from vaccination against the disease.

Prevention of Natural Mumps Following Exposure

Adults and adolescents who are susceptible to mumps by clinical history present a perplexing medical problem when exposed to mumps.§ It is not now known if live mumps vaccine will provide protection when administered after exposure. There is, however, no contraindication to its use at that time.

Precautions in Using Live Mumps Vaccine

Severe Febrile Illnesses

Vaccination should be postponed until the patient is completely recovered.

Marked Hypersensitivity to Vaccine Components

Mumps vaccine is produced in chick embryo cell culture and should not be given to

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persons hypersensitive to ingested egg proteins. Also, the vaccine contains small amounts of neomycin, so it should not be given to individuals known to be sensitive to this antibiotic.

Leukemia, Lymphomas, and Other Generalized Malignancies

Theoretically, attenuated mumps virus infection might be potentiated by other severe underlying diseases, such as lymphomas and generalized malignancies.

Altered Resistance from Therapy

Steroids, alkylating drugs, antimetabolites, and radiation may predispose to untoward complications due to altered resistance.

Pregnancy

Mumps virus infection is not known to exert any untoward effects on the developing fetus. It is reasonable on theoretical grounds, however, to avoid using the live mumps vaccine during pregnancy.

Simultaneous Administration of Live Mumps Vaccine With Other Antigens

In order to evaluate the live mumps vaccine adequately, its simultaneous administration with other vaccines should be deferred until results of controlled clinical investigations are available. Until then, it is recommended that mumps vaccination be separated from other immunization procedures by about one month whenever possible.

Continued Surveillance

Careful surveillance of mumps is particularly important now that an effective vaccine is available. There is need to emphasize improved reporting of mumps cases, complications of cases, patterns of vaccine use, effectiveness of vaccine after exposure to natural infection, and general vaccine performance. These data will help to delineate the epidemiologic characteristics of the disease and to define future use of the vaccine.

BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

October 1967

Live Births / Deaths / Causes of Death	Number Registered During October 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	5,654	3,714	1,940	18.7	18.9	20.9
Deaths	2,709	1,859	850	9.0	9.5	9.1
Fetal Deaths	107	53	54	18.6	22.7	17.0
Infant Deaths—						
under one month	104	55	49	18.4	18.4	17.3
under one year	149	74	75	26.4	24.8	26.1
Maternal Deaths	2	1	1	0.3	3.5	3.2
Causes of Death						
Tuberculosis, 001-019	25	13	12	8.3	11.7	7.1
Syphilis, 020-029	5	1	4	1.7		0.3
Dysentery, 045-048					0.7	
Diphtheria, 055	2	1	1	0.7		0.3
Whooping cough, 056						
Meningococcal infections, 057	1		1	0.3	0.7	0.3
Poliomyelitis, 080, 081	**1	1		0.3		
Measles, 085						0.3
Malignant neoplasms, 140-205	381	301	80	125.9	138.4	123.8
Diabetes mellitus, 260	55	45	10	18.2	14.4	12.5
Pellagra, 281						0.3
Vascular lesions of central nervous system, 330-334	385	257	128	127.2	134.4	131.3
Rheumatic fever, 400-402	1		1	0.3	0.7	
Diseases of the heart, 410-443	878	639	239	290.2	312.6	306.5
Hypertension with heart disease, 440-443	90	37	53	29.7	35.4	40.3
Diseases of the arteries, 450-456	73	54	19	24.1	24.7	21.6
Influenza, 480-483	2	2		0.7	0.7	
Pneumonia, all forms, 490-493	53	36	17	17.5	17.7	26.0
Bronchitis, 500-502	6	4	2	2.0	1.0	0.3
Appendicitis, 550-553	2	2		0.7	0.7	
Intestinal obstruction and hernia, 560, 561, 570	16	10	6	5.3	3.7	4.4
Gastro-enteritis and colitis, under 2, 571.0, 764	4	1	3	1.3	3.0	3.0
Cirrhosis of liver, 481	32	23	9	10.6	6.4	7.8
Diseases of pregnancy and childbirth, 640-689	2	1	1	0.3	3.5	3.2
Congenital malformations, 750-759	23	19	4	4.1	3.4	4.0
Immaturity at birth, 774-776	26	13	13	4.6	5.7	6.5
Accidents, total, 800-962	197	144	53	65.1	73.2	58.2
Motor vehicle accidents, 810-835, 960	100	74	26	33.0	39.8	36.5
All other defined causes	375	236	139	123.3	141.1	129.2
Ill-defined and unknown causes, 780-793, 795	164	56	108	54.2	46.1	52.4

**late effects

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population





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ıtions: For use in management of anxiety and tension occurring or as accompanying symptom complex to medical and surgical ers and procedures. Though not a hypnotic, fosters normal hrough antianxiety and related muscle-relaxant properties.

raindications: History of sensitivity to meprobamate.

portant Precautions: Carefully supervise dose and amounts escribed, especially for patients prone to overdose themselves. xcessive prolonged use has been reported to result in dependence r habituation in susceptible persons, as alcoholics, ex-addicts, nd other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. (All tablets also available in REDIPAK® [strip pack], Wyeth.) Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director
November 1967

Examination for Intestinal Parasites	2,016
Examination for Malaria	1
Examination for Salmonella & Shigella (blood-feces-urine-food)	349
Examination for tubercle bacilli	4,127
Examination for gonococci	2,006
Serological tests for Syphilis	27,467
FTA	81
Darkfield	2
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	66
Staphylococcus (cultures for isolation and confirmation)	392
Examinations for diphtheria (isolation and confirmation)	165
Streptococci examinations	2,715
Mycology	23
Agglutinations	6
Vincent's infection	49
Complement fixation test	181
Test for Phenylketonuria (PKU)	6,886
Cytology	1,304
Water examinations	2,844
Milk and Dairy products examinations	4,724
Sea food examinations	286
Examination for Negri bodies (smears & animal inoculation)	322
Virology	12
Rh Factor Bloods	586
Miscellaneous	1,076
Total	57,686

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph. D., Director
December 1967

Examination for Intestinal Parasites	1,720
Examination for Malaria	1
Examination for Salmonella and Shigella (Blood-feces-urine-food)	220
Examination for tubercle bacilli	3,816
Examination for gonococci	1,736
Serological tests for Syphilis	23,095
FTA	63
Darkfield	1
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	66
Staphylococcus (cultures for isolation and confirmation)	333
Examinations for diphtheria (cultures of isolation and confirmation)	66
Streptococci examinations	2,626
Mycology	25
Agglutinations	9
Vincent's infection	7
Complement fixation test	251
Test for Phenylketonuria (PKU)	6,000
Cytology	1,205
Water examinations	2,636
Milk and Dairy products examinations	4,426
Sea food examinations	262
Examination for Negri bodies (smears and animal inoculation)	256
Virology	28
Rh factor bloods	473
Miscellaneous	761
Total	50,082

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director
Current Morbidity Statistics
1967

	Nov.	Dec.	*E. E. Dec.
Tuberculosis	111	80	95
Syphilis	73	68	100
Gonorrhea	382	330	268
Chancroid	0	1	1
Typhoid fever	0	0	5
Undulant fever	0	0	0
Amebic dysentery	0	2	3
Scarlet fever & strep. throat	613	762	90
Diphtheria	4	5	5
Whooping cough	66	5	5
Meningitis	8	4	8
Tularemia	1	0	0
Tetanus	0	2	1
Poliomyelitis	0	0	1
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	18	4	77
Chickenpox	20	38	53
Mumps	77	163	21
Infectious hepatitis	16	23	36
Typhus fever	0	1	0
Malaria	0	2	0
Cancer	677	713	468
Pellagra	0	0	0
Rheumatic fever	8	13	17
Rheumatic heart	23	21	24
Influenza	84	14,602	119
Pneumonia	282	490	233
Rabies—Human cases	0	0	0
Pos. animal heads	3	4	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

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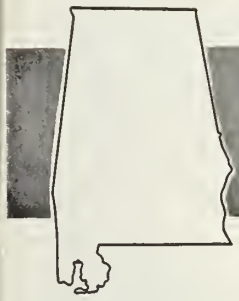
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See Page 901-902

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Vital Statistics

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Colbert County

Flippen, Joseph Wheeler, III, 1111 S. Raleigh Street, Sheffield, Alabama 35660.

Cullman County

Bownes, Eugene Alloysius, 118 E. 2nd Street, Cullman, Alabama 35055.

Etowah County

Abernathy, Frank, Jr., Route 5, Gadsden, Alabama 35901.

Jefferson County

Brown, William, 412 4th Avenue, Bessemer, Alabama 35020.

Cloyd, Walter, 1529 No. 25th Street, Birmingham, Alabama 35204.

Grimes, Bennie Matthew, 1529 No. 25th Street, Birmingham, Alabama 35204.

Moody, Frank G., 1919 S. 7th Avenue, Birmingham, Alabama 35233.

Wilson, Thomas A. S., 1318 S. 19th Street, Birmingham, Alabama 35205.

Lowndes County

Meadows, Henry Howard, P. O. Box 236, Hayneville, Alabama 36040.

Montgomery County

Stern, Louis H., 2105 E. South Boulevard, Montgomery, Alabama 36111.

DECEASED

Calhoun County

Woolf, Joseph H., 112½ N. Center, Piedmont, Alabama 36272.

Choctaw County

Allen, Ralph Hughley, Butler, Alabama 36904—deceased September 26, 1967.

Jefferson County

Gaines, Cecil Dean, Woodward Building, Birmingham, Alabama 35203—deceased November 15, 1967.

Orton, Allen E., Muscoda Hospital, Bessemer, Alabama 35020.

CHANGE OF ADDRESS

Chambers County

McCrory, Ellann, present Lanett, Alabama 36863, to Radiology Department Lanier Hospital, Langdale, Alabama 36864.

McMurrain, K. D., Jr., present Shawmut, Alabama 36876, to West Point Pepperell, Inc., P. O. Box 366, West Point, Georgia 31833.

Covington County

Moore, Morgan J., present Andalusia, Alabama 36420, to P. O. Box 758, Professional Center, Andalusia, Alabama 36420.

Escambia County

Goldsmith, Edward F., present Atmore, Alabama 36502, to P. O. Box 380, Atmore, Alabama 36502.

Jackson County

Hodges, Emmett J., present Scottsboro, Alabama 35768, to 915 S. Broad Street, P. O. Box 370, Scottsboro, Alabama 35768.

Jefferson County

Cord, Richard H., present Birmingham, Alabama 35205, to 1025 S. 18th Street, Suite A., Birmingham, Alabama 35205.

Litzinger, Morgan J., Jr., present Birmingham, Alabama 35209, to 3036 Brook Hollow Lane, Birmingham, Alabama 35243.

Purvis, J. T., present Highpoint, North Carolina 27262, to 1717 Bellevue Avenue, Richmond, Virginia 23277.

Lauderdale County

Hyatt, Arthur J., present Florence, Alabama 35630, to 225 Queensbury Drive, Huntsville, Alabama 35802.

Mobile County

Brier, Robert L., present Mobile, Alabama 36604, to 25 Midtown Park W., Mobile, Alabama 36606.

Green, Edward J., present Mobile, Alabama 36607, to 1507 Springhill Avenue, Mobile, Alabama 36604.

Montgomery County

Hughes, William D., present Montgomery, Alabama 36106, to 1739 Croom Drive, Montgomery, Alabama 36106.

McCall, Doy L., Jr., present Montgomery, Alabama 36104, to 311 Dallas Avenue, Selma, Alabama 36701.

Morgan County

Copeland, Sage D., present Decatur, Alabama 35601, to 2316 Horsetree Place, S. E., Decatur, Alabama 35601.

Randolph County

Short, William B., Jr., present Roanoke, Alabama 36274, to 3022 Puanani Street, Likue, Kauai, Hawaii 96766.

Jefferson County

Farmer, Harry R., present Como, Mississippi 38619, to Fairfield, Alabama 35064.

TRANSFERS

Marshall County

Roper, Robert Rollin, present Jasper, Alabama 35501, to Albertville-Boaz Hospital, Boaz, Alabama 35957. (Transfer member from Walker County Medical Society to Marshall County Medical Society.)

County Society Meetings

Blount

Dr. Robert H. Yoe, Birmingham, was the principal speaker at the Blount County Medical Society meeting in November. His topic was "Review of the Use of Cardiac Pacemaker and Defibrillator."

Dr. J. L. Wittmeier presided at the meeting. Seven members were present.

Mobile

Mobile Attorney, J. Edward Thornton, was presented a certificate of merit for outstanding services at the 90th annual meeting of the Medical Society of Mobile County. The certificate was presented to Mr. Thornton for

(Continued on Page 984)



New, Long-term Psychiatric Facility

The new forty bed Parkwood Hospital specializes in long-term treatment of the mentally ill. Under the direction of a Medical Director, the hospital facilities are available to over thirty psychiatrists who are on its staff. Parkwood provides a full complement of exceptional facilities including X-ray, laboratory, pharmacy, occupational and music therapy, patient beauty parlor and an outdoor recreational area. ☐ Special efforts were made to combine maximum patient comfort with a warm, secure, residential atmosphere readily conducive to psychotherapy. ☐ We will be pleased to provide further information upon request.

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PARKWOOD HOSPITAL

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(Continued from Page 982)

outstanding service by a layman in the field of medicine.

Dr. Harry Webster, Jr., was installed as president of the society. He succeeds Dr. Neal Flowers. Dr. Herbert V. Allen was elected and installed as president-elect.

Other officers elected for 1968 include Dr. William P. Coates, secretary; Dr. Samuel Eichold, treasurer; Dr. Edgar C. Fonde, librarian; and Dr. C. M. Walsh, III, member of the Board of Censors.

Dr. Thomas D. Davis, Dr. Jack Hyman, and Dr. J. Richard Moore were elected trustees.

Dr. Sidney R. Berry was elected as a new member.



Dr. Harry Webster, Jr., incoming president of the Mobile County Medical Society presents outgoing president, Dr. Neal Flowers with a plaque.



Doctors S. Eichold, II, C. W. Winsor, and J. H. Dodson seem to be enjoying themselves in singing the old favorite songs at the January Mobile Society meeting.

Membership of the society increased by nine this year.

The society donated $2,200 to its Charles A. Mohr Medical Library at Mobile General Hospital and $250 to the Mobile Regional Science Fair.



Mrs. and Mr. J. Edward Thornton, Mobile Attorney; Dr. and Mrs. Neal Flowers; Dr. and Mrs. H. Webster, Jr.; and Dr. and Mrs. W. P. Coates at the head table.

Faculty Member Promoted

Dr. Keith D. Blayney has been promoted to the rank of Associate Professor in the School of Health Services Administration, University of Alabama in Birmingham.

Doctor Blayney is director of the school's newest department, the Bureau of Research and Community Services. He is also acting director of the Regional Technical Institute for the Health Occupations, and he teaches in the Graduate Program in Hospital Administration.

Doctor Blayney has recently presented a number of papers before professional organizations and has published a number of research projects and articles in professional journals.

A native of Iowa, Doctor Blayney has a Ph.D. in hospital and health administration, an M. A. in hospital administration, and a B. S. in labor management from the University of Iowa.

Called Meeting—Counsellors and Delegates January 14, 1968



Dr. E. Bryce Robinson, Jr., Fairfield, MASA President, presided at the morning session of the January 14 meeting. Speakers who spoke on the Appalachian Regional Development Act are, left to right, Keith Blayney, Ph. D., Birmingham; Mr. Howard Bray, Deputy Director, Appalachian Development Commission, Washington, D. C., and Mr. Claude R. Kirk, Sr., State Director, Federal Coordinating Committee, Montgomery.



Regional Medical Program speakers, left to right, are: Dr. Harold Schnaper, Medical College, Birmingham; Dr. J. O. Finney, Associate Director, Alabama Regional Medical Program; Dr. E. L. McCafferty, Mobile, President-elect MASA, who conducted the afternoon session; Dr. Benjamin Wells, Director ARMP, Birmingham, and Dr. R. F. Manegold, Associate Director, National Institute of Health for Research and Development, Bethesda, Maryland.



A portion of the Counsellors, Delegates attending the nation's first symposium on Federal-State health care programs held in Montgomery January 14, 1968.

Computer System Now In Use

A specially equipped computer monitoring system now in use at the University of Alabama Medical Center is enabling UA physicians and nurses to provide better intensive care to open-heart surgery patients during the critical postoperative hours. The IBM 1800 system senses, translates, and relays a steady stream of information on a patient's physiologic condition, thereby keeping attendants constantly informed of vital changes.

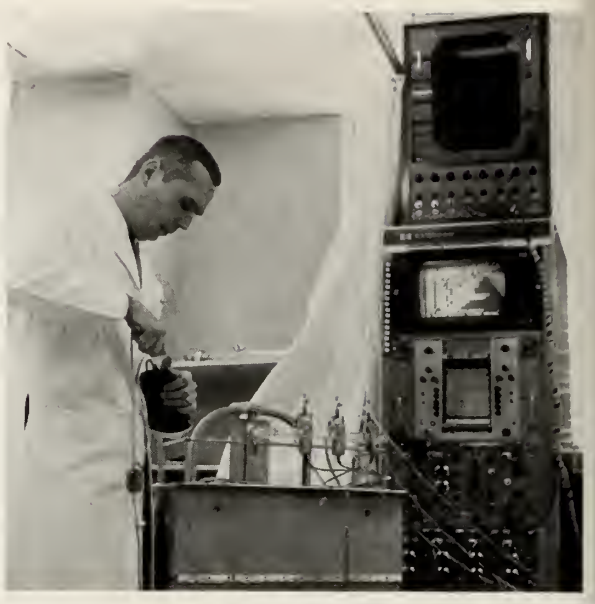
University Hospital officials say that the 1800, used in some 60 cases to date, improved patient care by insuring continuous and accurate recording of physiologic function, and, at the same time, has enabled health professionals to increase their efficiency with respect to time usage.

Dr. John Kirklin, chairman of the Department of Surgery, said, "The system has freed nurses from repetitious measurement and recording routines and has, consequently, given them more time to do what they are trained to do—administer superb patient care."

"Since it operates within limits which are pre-set by the physician, the computer is under our direct control," Dr. Kirklin said. "Also, there is never a break in the manner and frequency with which data on the patient's condition are taken and recorded."

Sensors linking the patient and the computer transmit information on temperatures, intra-arterial pressure, intracardiac pressures, chest drainage, and electrocardiographic signals. These signals are analyzed, translated, and displayed over closed-circuit television located at the patient's bedside, giving the physicians and nurses readings on heart rate, systolic blood pressure, average right and left atrial pressures, central body temperature, skin temperature, chest drainage, and volume of blood infused.

At five minute intervals, new readings are logged and compared with specific criteria set by attending physicians. Any data revisions, plus messages to attendants, are displayed at the bedside. These messages may include recommendations to clean or adjust sensors, or to infuse blood. At the direction of the physician, the computer can automatically turn on a pump to add the required amounts of blood to the patient's blood stream.



New computer at the Medical Center

"Our system now manages infusion of blood and soon will manage infusion of glucose and medications," Dr. Kirklin said.

Dr. S. Richardson Hill, Jr., dean of the Medical College of Alabama, said, "Other institutions have used computers to monitor a variety of patient functions. Our system includes the important feature of 'real work' in patient care. This improvement is in keeping with our goal of providing the best patient care with the most modern techniques available."

The new computer system also will be of value in the Medical College's program of education, Dean Hill said. "Students in the last years of medical training will have the opportunity to study advanced technology in patient care, and will be able to treat patients using these techniques. These students will devote more time to research and prac-

tice, since less of their time will be required for patient monitoring."

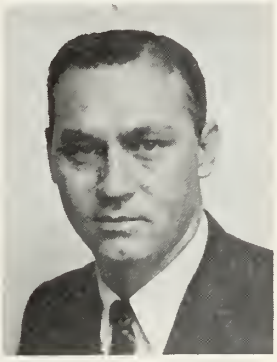
In addition to patient monitoring, the IBM 1800 is used for fundamental research. Data collected during patient monitoring are stored automatically for retrieval and analysis in related research projects. The computer system also is used for other, non-monitoring related projects.

Funds for the program originated in state and federal tax money appropriated through the Medical Center and the Alabama Vocational Rehabilitation Administration.

New Physicians Licensed To Practice In Alabama



Saebert Lionel Chamikles, M. D., Albany Medical College of Union University, 1957, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



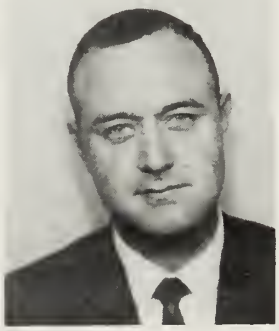
Frank Abernathy, Jr., M. D., Medical College of South Carolina, 1965, Reciprocity with South Carolina—Intends to locate in Hokes Bluff.



Samuel Peters Gillis, M. D., University of Tennessee College of Medicine, 1959, Reciprocity with Tennessee—Intends to locate in Birmingham.



Delilah Little Turpin, M. D., University of Virginia School of Medicine, 1963, Reciprocity with Virginia—Intends to locate in Tuscaloosa.



John Hendon Haley, Jr., M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Richard Thomas Moxley, III, M. D., University of Pennsylvania School of Medicine, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Peter Ditoro, M. D., Hahnemann Medical College, 1946, Reciprocity with Pennsylvania—Intends to locate in Huntsville.



Wilson David Spruill, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Haddon Christopher Alexander, III, M. D., University of Virginia School of Medicine, 1959, Reciprocity with Virginia—Intends to locate in Birmingham.



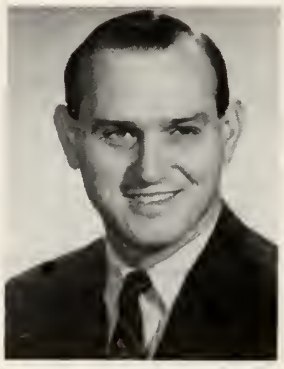
Wilbur Leroy Kukes, M. D., Yale University School of Medicine, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery (Tuskegee).



Life Barnard, M. D., University of Texas Southwestern Medical School, Dallas, Texas, 1966, Reciprocity with Texas—Intends to locate in Mobile.



James DeWese Moore, M. D., University of Tennessee College of Medicine, 1960, Reciprocity with Mississippi—Intends to locate in Decatur.



Arnold Gillespie Diethelm, M. D., Cornell University, 1958, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Benjamin Belton Neely, M. D., Medical College of Georgia, 1963, Reciprocity with Georgia—Intends to locate in Heflin.



Hildreth Bert Elwell, Jr., M. D., Jefferson Medical College, 1943, Reciprocity with Delaware—Intends to locate in Huntsville.



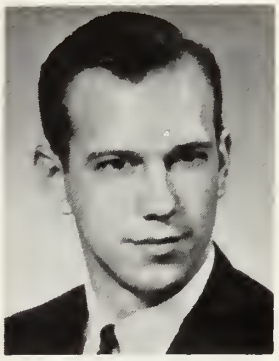
Robert Bernard Rubin, M. D., University of Miami School of Medicine, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Montgomery.



David King Fletcher, M. D., University of Texas Southwestern Medical School, 1961, Reciprocity with Texas—Intends to locate in Birmingham.



Mary John Brown Tiller, M. D., Tulane University School of Medicine, 1951, Reciprocity with Louisiana—Intends to locate in Birmingham.



Arthur William Willis, Jr., M. D., Indiana University School of Medicine, 1966, Reciprocity with Delaware—Intends to locate in Montgomery (Tallassee and Wetumpka).



John Logan Ward, M. D., Medical College of South Carolina, 1961, Reciprocity with South Carolina—Intends to locate in Birmingham.



Ralph Earl Tiller, M. D., Tulane University School of Medicine, 1951, Reciprocity with Louisiana—Intends to locate in Birmingham.



Alfred Eugene Turman, M. D., Vanderbilt University School of Medicine, 1957, Reciprocity with Tennessee—Intends to locate in Birmingham.



Jack Wray Wilson, M. D., University of Tennessee College of Medicine, 1962, Reciprocity with Tennessee—Intends to locate in Birmingham.



David Maurice Hurst, M. D., University of Tennessee College of Medicine, 1962, Reciprocity with Tennessee—Intends to locate in Montgomery.

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Leonard Wayne Martinec, M. D., University of Mississippi School of Medicine, 1964, Reciprocity with Mississippi—Located in Huntsville.



Olcie Alan Jared, III, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



David Escar Marley, Jr., M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Is a native Alabamian entering service in August, 1967, is undecided as to definite location when he returns from service.



William James Kenneth Rockwell, M. D., Duke University School of Medicine, 1961, Reciprocity with North Carolina—Intends to locate in Tuscaloosa.



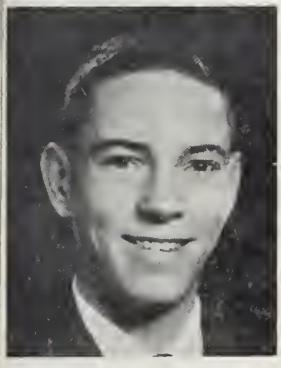
Jon Emory Sanford, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Located in Gordo.



John Edmund Birdsell, Jr., M. D., University of Michigan Medical School, 1952, Reciprocity with Indiana—Intends to locate in Birmingham.



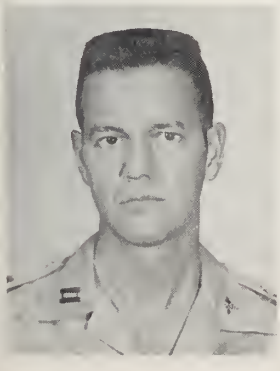
William Alton Brown, Jr., M. D., Louisiana State University of Medicine, 1966, Reciprocity with Louisiana—Intends to locate in Jasper.



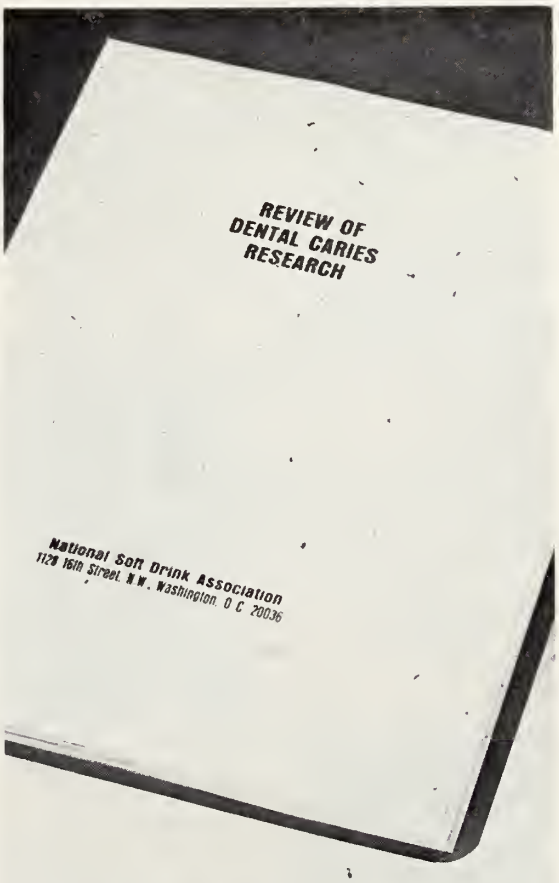
Arthur Fulkerson Toole, III, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Talladega.



Rebecca Fitzgerald Dailey, M. D., University of Arkansas School of Medicine, 1966, Reciprocity with Arkansas—Intends to locate in Jasper.



Wendell Elwood Gordon, M. D., University of Tennessee College of Medicine, 1959, Reciprocity with Tennessee—Intends to locate in Anniston (Fort McClellan).



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Samuel Rushing Smith, M. D., Emory University School of Medicine, 1962, Reciprocity with Georgia—Intends to locate in Anniston.



Edward Earl Litkenhouse, Jr., M. D., Vanderbilt University, 1961, Reciprocity with Tennessee—Intends to locate in Huntsville.



William Carey Wallace, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Intends to locate in Sylacauga.



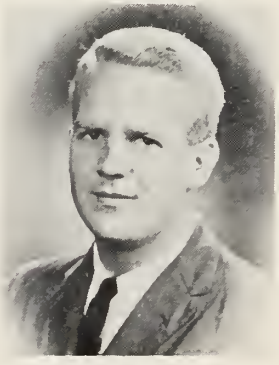
Mose Clarke Woodfin, Jr., M. D., Vanderbilt University School of Medicine, 1961, Reciprocity with Tennessee—Intends to locate in Montgomery.



Jerome Marshall Hershman, M. D., University of Illinois College of Medicine, 1964, Reciprocity with Michigan—Intends to locate in Mobile.



Samuel Britt Owens, M. D., University of Tennessee College of Medicine, 1959, Reciprocity with Tennessee—Intends to locate in Decatur.



Ernest Vernon Stabler, Jr., M. D., Johns Hopkins University School of Medicine, 1960, Reciprocity with Maryland—Intends to locate in Greenville.



Gerald Ray Roberts, M. D., University of Tennessee College of Medicine, 1966, Reciprocity with Mississippi—Intends to locate in Decatur.



Joseph Garber Cocke, Jr., M. D., Medical College of Alabama, 1961, Reciprocity with National Board of Medical Examiners—(Dr. Cocke is in the Regular U. S. Army Medical Corps and desires licensure in Alabama and in Texas based on reciprocity with Alabama. If he practices in Alabama, it will be in Tuscaloosa.)

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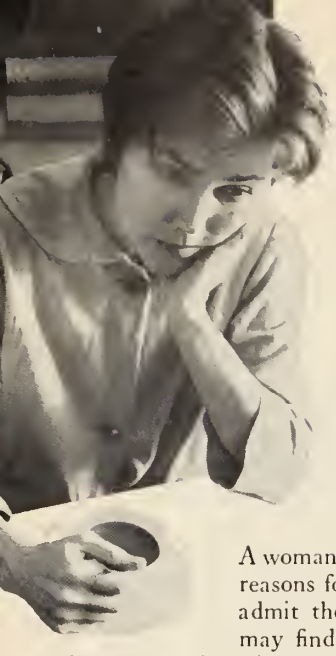
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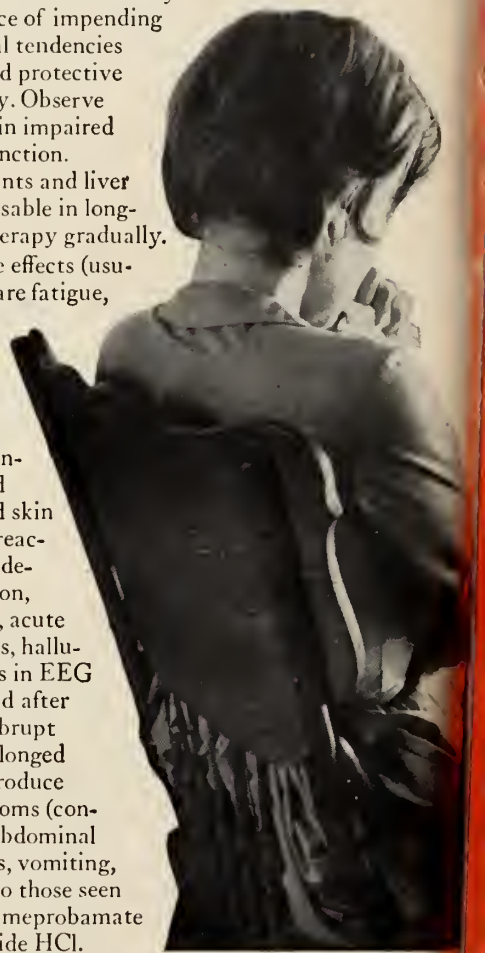


Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Infants, patients with history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.



Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage: *Adults:* Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. *Geriatric patients:* 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See Precautions.)

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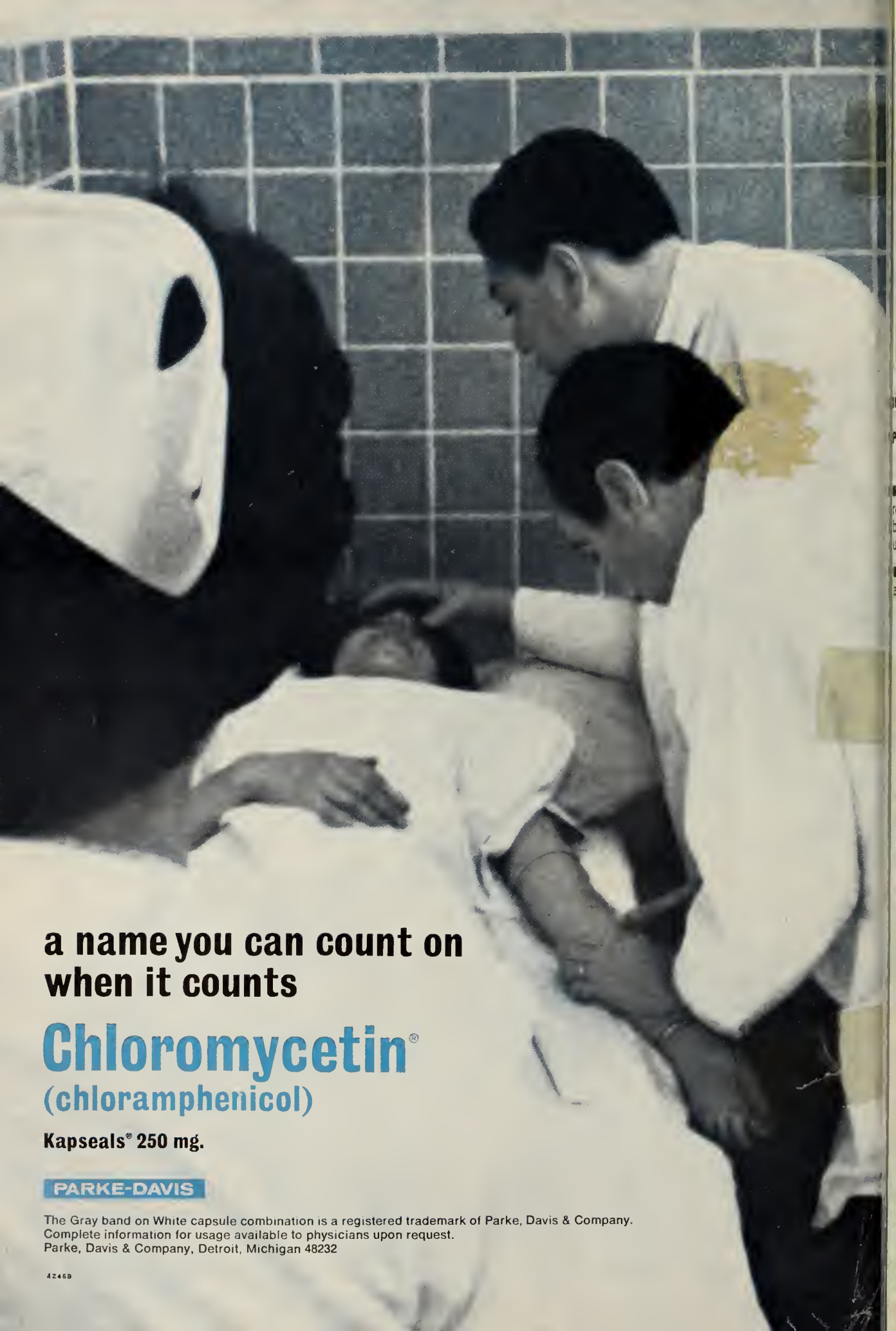
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THE JOURNAL

of the

Medical Association of the State of Alabama

Volume 37 • March, 1968 • No. 9

Office of Publication

19 So. Jackson St. Montgomery, Ala. 36104

Subscription Price $5.00 Per Year

$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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Managing Editor

L. P. Patterson Montgomery

Assistant Managing Editor

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Precautions—Overgrowth of nonsusceptible organisms may occure. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

In the treatment of syphilis a dosage schedule of a total of 12 to 18 Gm. given in equally divided doses over a period of 10 to 15 days should be followed. Close follow-up observation of the patient is recommended, including appropriate laboratory tests, since demethylchlortetracycline has not had adequate evaluation in all stages of syphilis. Spinal fluid examination should be included as part of this follow-up.

Acute gonococcal anterior urethritis in males has been treated effectively with a single dose of 600-900 mg. of DECLOMYCIN Demethylchlortetracycline. Individuals unable to tolerate large single doses due to gastrointestinal side effects may be treated with 150 mg. every 6 hours for a minimum of 4 doses or 300 mg. every 12 hours for a minimum of 2 doses. Females should be treated with a dosage of 150 mg. every 6 hours or 300 mg. every 12 hours until a cure is effected.

Primary Atypical Pneumonia (Eaton Agent): The average adult daily dosage is 900 mg. in 3 divided doses for six days.

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President's Page

Potpourri

March is the month scheduled to usher in Spring. We hope it arrives on time with appropriate weather for the season. This can afford us an opportunity to renew our objectives with vigor for the coming months and recover from the Winter.

The called meeting on January 14, 1968, in Montgomery of the College of Counsellors and the House of Delegates to consider Federal legislation pertaining to medicine just has to be the outstanding event of this administration. We take no credit for this. All credit is due to the President-Elect, the four Vice-Presidents, and especially to Pat Patterson, Bob Ingram and their associates. We have received many letters of congratulation about such an outstanding meeting with Alabama being a pioneer in this area. This meeting also has brought us favorable national recognition.

The Handbook prepared for the Counsellors and Delegates by the staff is superb. The first printing was soon exhausted and a second printing was the same. It is also being published as a supplement to the Journal of the Medical Association of the State of Alabama. We feel sure that in the weeks and months to come we will have other requests for this material. We extend our hearty congratulations and thanks to Pat, Bob and their colleagues for a job done in an outstanding manner.

The appreciation and commendation of all of us should go to Dr. John M. Slaughter, Chairman, and other members of the Committee on Socio-economics. You will recall



Dr. E. Bryce Robinson, Jr.

this committee is only a few months old but in recent months they have been the busiest of all of our committees. They have worked many long hours. One of their first items to be involved in was Public Law 89-749—Comprehensive Health Planning. A problem about this had arisen in Jefferson County and we are happy to report that they resolved this matter in a mutually satisfactory manner for all concerned.

The remainder of 1968 will be most important to us as doctor-citizens—with all members of the House of Representatives of Congress having to be elected and the Presidential election. There will also be some positions in the United States Senate to fill. Because of this, it is even more mandatory that we become involved in and support

ALAPAC. If we do this, our voice will be heard and heeded in a positive way. If we do not, then the reverse is inevitable. We anticipate that by the time you read this, membership in ALAPAC will show a most substantial increase. If you are not now a member, we urge you to send in your dues today!

We hope that a special session of the Legislature will be called in the not too distant future. This should greatly expedite enabling legislation to provide state funds for the Title XIX program (Medicaid) so that we can get on with that project.

E. Bryce Robinson, Jr., M. D.,
President, The Medical Association of the State of Alabama

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

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Parepectolin for quick relief of acute diarrhea
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Pectin (2½ grains) 162 mg.
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The Woman's Auxiliary

And the Spring arose on the garden fair,
Like the Spirit of Love felt everywhere;
And each flower and herb on Earth's dark breast
Rose from the dreams of its wintry rest.

Percy B. Shelley

The whole world seems to come alive in March as winter ends and spring begins. Sap flows in the trees and green buds appear, wild flowers bring beauty to the countryside, animals leave their sleeping places, and the song of the robin fills the air.

In keeping with the season, the Woman's Auxiliary, too, seems to come alive as we begin to evaluate our accomplishments of the year that has passed and make plans for our annual meeting and the year that lies ahead.

We are thrilled and excited over the plans that have been made for our Convention next month. These plans are under the capable leadership of Mrs. William G. Thuss, Sr., Convention Chairman. Members of the Woman's Auxiliary to the Jefferson County Medical Society and the Bessemer Woman's Auxiliary are working together to make this Convention one of the best. We are honored to have as our special guests Mrs. Karl Ritter, President of the Woman's Auxiliary to the AMA, and Mrs. Louie Griffin, President of the Woman's Auxiliary to the Southern Medical Association.

As we review the activities of the past year, we are proud of our accomplishments. One of the priority goals was to help improve the image of medicine, and I am confident that this has been accomplished as



Mrs. James C. Guin, Jr.

doctors' wives throughout the state have joined hands with other organizations to work with them in their health related programs.

Due to the increasing legislation affecting the practice of medicine, we felt a great responsibility to see that our members were informed on political issues concerning the practice of medicine. This we have endeavored to do through our Legislative Committee, and I think our success is evidenced by the interest of our members and the increase in Alapac membership.

Realizing that an informed member is an interested one, through orientation programs, we have endeavored to instill in the minds of our members the heritage that is ours and the responsibility that is theirs to help preserve it.

Another of our priority projects has been

to increase membership. This too, has been accomplished as the enthusiasm among our members has attracted and created in others a desire to share the unique privilege that is ours.

As I compile the reports of the County Presidents, State Officers and Committee Chairmen, I realize that our dreams have become a reality. They have been realized, not because of the efforts of one individual, or of one group, but because of the enthusiasm and dedicated service of every Auxiliary member, and the support and encouragement of the officers, staff and members of the Medical Association. We are grateful to each of you for your help.

Kay Guin

Mrs. James C. Guin, Jr.
President

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Called Meeting

The members of this Association can take pride in the attention which has been focused on the January 14 Called Meeting of the College of Counsellors and House of Delegates held for the purpose of digesting and delineating seven Federal-State programs which are destined to have a profound effect on the practice of medicine in this state and the nation as a whole.

It has been predicted that the independent and private practice of medicine as it is known today will disappear in the United States by the end of this century. Those who advance this theory believe that physicians—each a specialist—will become hirelings of the government or health care institutions.

Should these predictions prove correct, the intimate physician-patient relationship which engenders that confidence so essential to the treatment and cure of disease will have disappeared. Perhaps, in its stead, the physicians and patient will turn to yet-to-be discovered drugs or some palliative to accomplish the same results.

Be that as it may, the physicians of Alabama took a step in the right direction when they assembled in Montgomery on a subfreezing Sunday morning, braving ice-covered highways and snow, to make a serious study of the seven federally-sponsored programs which will extend health services to at least half of the population of Alabama.

By 1975 it is safe to assume that no citizens of this state will be too remotely located to receive the broadest range of comprehensive health services. Physician services, hospital and extended care institutions, drugs, home nursing, prosthetic devices, dental care, diagnostic, screening, preventive and rehabilitative services will be as close to the individual as the nearest social worker.

To make an understatement, the impact upon this state's financial resources and medical-paramedical capabilities will be nothing short of crushing.

The ability to absorb the shock will depend as much on the physical endurance of the providers involved as upon the educational capabilities of this state. To state that more health care personnel must be trained in the shortest possible time is to acknowledge the reality. More classrooms alone is not the answer. Nothing less than an all-out recruiting effort to attract the most brilliant students available into health careers will meet the problem.

In summoning the counsellors, delegates and other leadership of the Association into extraordinary session, President E. Bryce Robinson, Jr. has done no more than give them an opportunity to face the inevitable. With the knowledge that the government has acted positively to meet the health needs of this nation, whatever may be the cost, physicians of Alabama and the other 49 states now face the test of participation without stifling regimentation; of cooperation without domination.

Utilization Review

During the past month Blue Cross-Blue Shield of Alabama, Inc., with the assistance of this Association and the Alabama Hospital Association, has sponsored a series of four workshops on the subject of utilization review in an effort to eliminate some of the difficulties in a procedure which has now been made mandatory by the enactment of the Medicare-Medicaid law.

While attendance at these four meetings consisted largely of members of hospital Utilization Review Committees this is a subject which concerns every practicing physician. It is hoped that the information and conclusions derived from these workshops will quickly be made available to all physicians and patients alike.

It is this Association's contention that utilization review is not a novel concept dreamed up by some Washington bureaucrat. On the contrary, it is common sense to make certain that the limited facilities and medical personnel available in Alabama today are used to the maximum extent which good health care permits.

It is an established fact that the cost of health care is rising at a rate which outstrips many other public services. The reasons for this situation are many and sometimes complex. For instance, thanks to better diagnostic procedures, new so-called miracle drugs, scientific advances in medical and surgical treatment, the duration of illness has probably been reduced more sharply, percentage-wise, than the cost of health services have risen.

Physicians, themselves, have the commanding voice in determining whether utilization is assured to its aprical extent.

One of the most serious misconceptions about a Utilization Review Committee is that it is primarily a policing body, armed with the power to ferret out and censure guilty physicians. This is neither its intent nor purpose. A Utilization Review Committee does have some disciplinary powers, but its records are not incorporated in the patient's chart, and its deliberations do not become a matter of official record. The primary objective of such a committee is educational for each and every member of the hospital staff.

Control of utilization is not considered to be a problem of identifying and dealing with a few bad actors on the staff who indulge in flagrant abuse. The fact is that conscientious utilization committees invariably find that almost all physicians are, at some time or another, involved in some aspect of ineffective utilization. It is here where Utilization Review Committees can have their most beneficial impact. A half-day delay in the dismissal of most patients in one category can have a greater impact on utilization rates than the isolated instance of a ten or twenty day excessive stay or a case of unnecessary admission. Rather than police, the primary objective of the Utilization Committee is to improve, not measure, utilization practices.

(Continued on Page 1008)

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

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A simplified approach to the practical management of hypertension



Enduron: (methyclothiazide) A basic building block for mild hypertensives



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The therapeutic action is smooth, and persits for a full 24 hours. With Enduron you can prescribe convenient once-a-day dosage without skimping your patients on day-long thiazide effectiveness.

Of course, as with all thiazides, supplemental dietary potassium should also be considered.

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Once a day, every day

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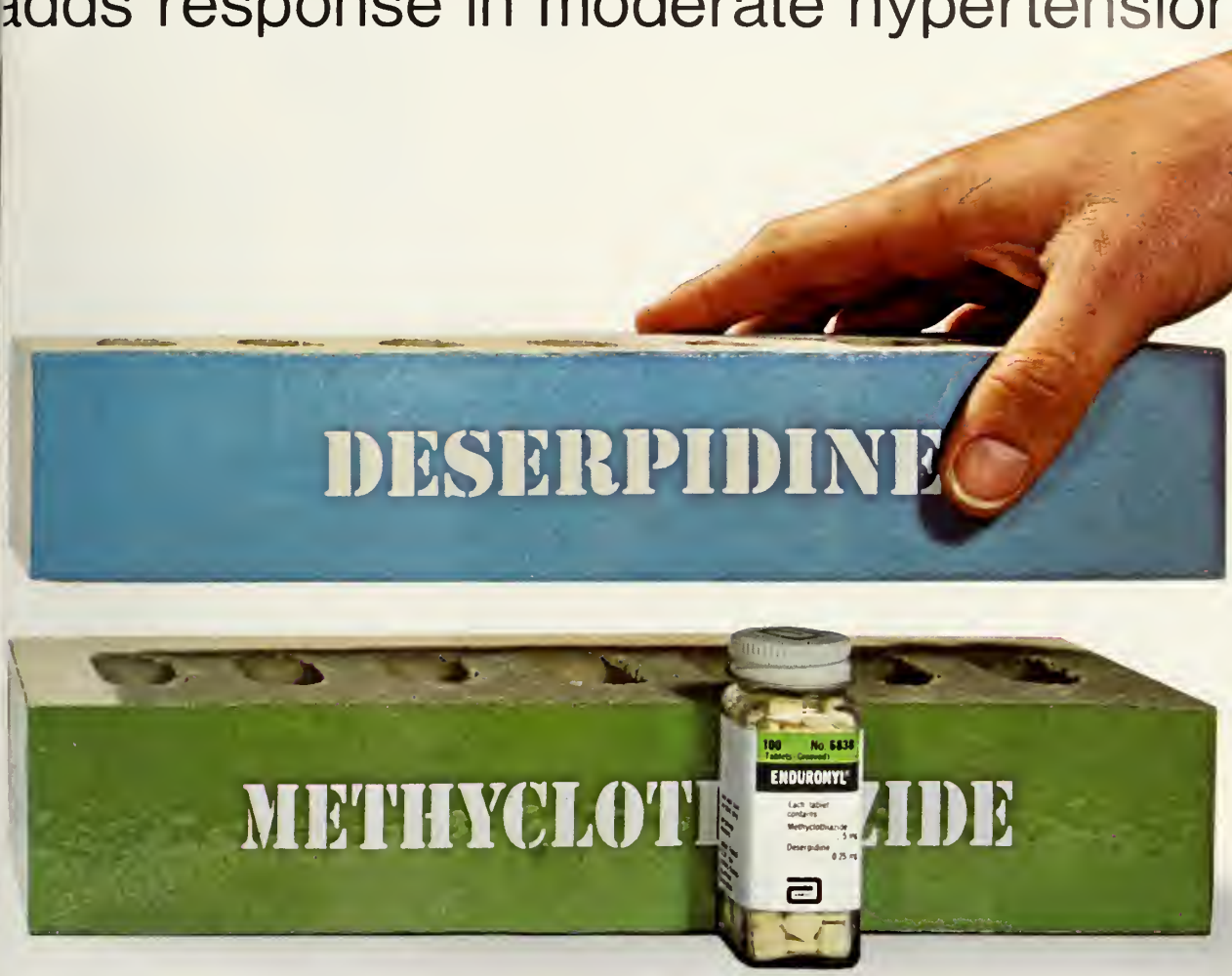
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Enduronyl: Its deserpidine component adds response in moderate hypertension



Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

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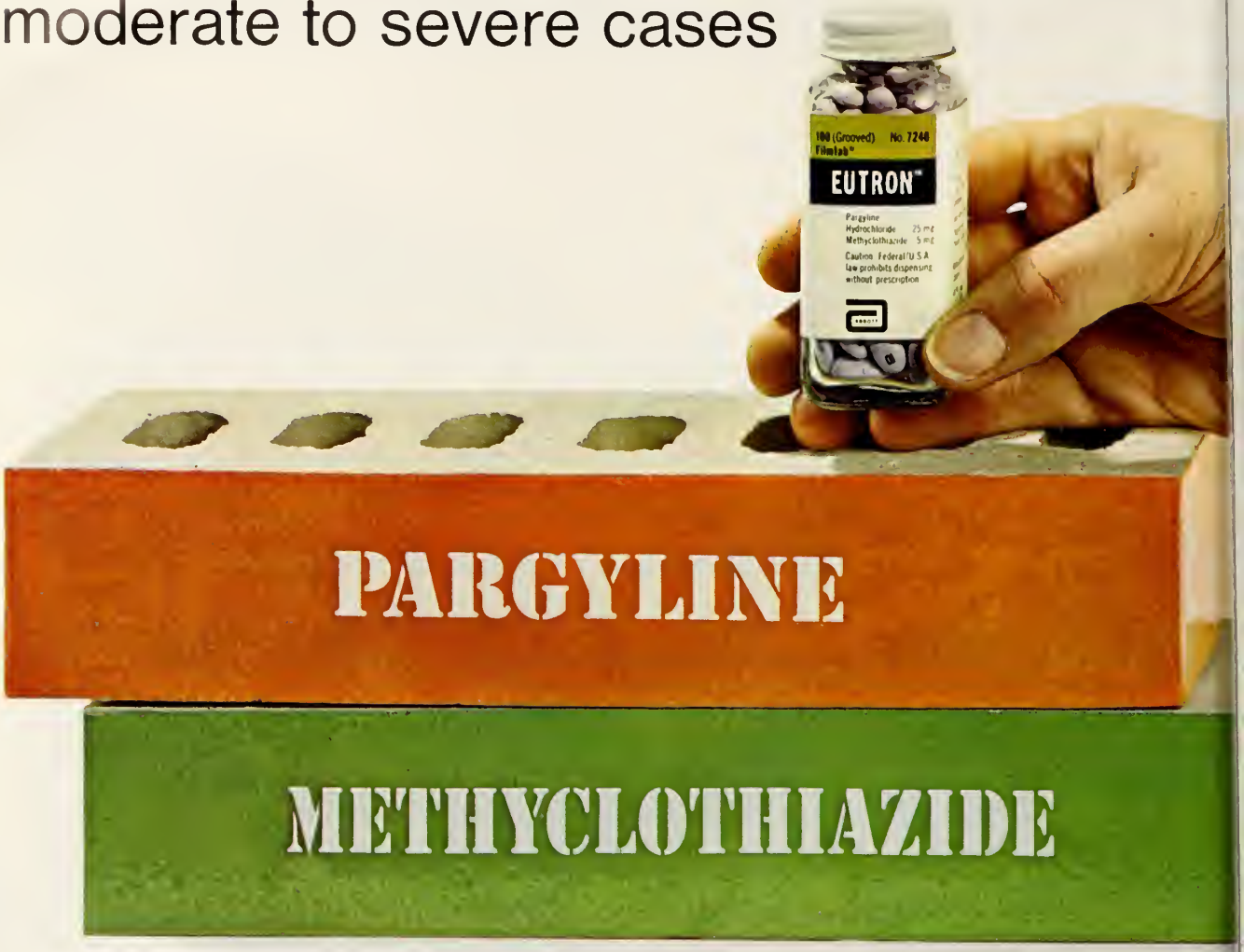
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METHYCLOTHIAZIDE 5 mg. with DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.



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Affords almost uniform diastolic reduction in all body positions

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Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

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with METHYCLOTHIAZIDE 5 mg.

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Each tablet contains
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Deserpidine 0.25 mg. or 0.5 mg

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

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Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for patients with mild or labile hypertension amendable to therapy with sedatives and/or thiazide diuretics alone. It is desirable to establish the dosage of Eutron by administering component drugs separately.

TM-TRADEMARK

Contraindications: Pheochromocytoma, advanced renal disease, increasing renal dysfunction, paranoid schizophrenia and hyperthyroidism. Hepatic coma has been reported as consequence of hypokalemia with thiazide therapy. Until further experience is gained not recommended for patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. 2 week interval should separate therapy and use of these agents.

Methyclothiazide is contraindicated in patients with known sensitivity to thiazides.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When indicated, alcohol, narcotics (meperidine should be avoided), antihistamines, barbiturates, chloral hydrate, and other hypnotics, sedatives, tranquilizers, or caffeine, may be used cautiously in reduced dosage. In emergency surgery ¼ to ⅓ the usual dose of narcotics, analgesics, and other premedications should be used avoiding parenteral administration where possible. Carefully adjust dose of anesthetics to response of patient. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or coronary artery disease should not increase physical activity with an improvement in well being. Pargyline may lower blood sugar.

Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions consisting of stenosis with or without ulceration. These small-bowel lesions have caused obstruction, hemorrhage and perforation frequently requiring surgery. Medication should be discontinued immediately if abdominal pain, distension, nausea, vomiting or GI bleeding occurs. These products contain no added potassium salts and if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical. In patients with a history of allergy or asthma the possibility of sensitivity reactions should be considered.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields and fundi. Also reported have been: blood dyscrasias including thrombocytopenia with purpura, agranulocytosis and aplastic anemia; elevations of BUN, serum uric acid, or blood sugar. Symptomatic gout may be induced. In surgical patients thiazides may reduce response to vasopressors and increase response to tubocurarine.

Adverse Reactions: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extrapyramidal symptoms have been reported in a few patients with reduced cardiac reserve.

During intensive or prolonged therapy, guard against hypochloremic alkalosis and hypokalemia (especially the latter if patient is on digitalis). Observe all patients for signs of hyponatremia ("low salt" syndrome).

Reported thiazide reactions also include anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, and pancreatitis. Nocturia has been observed with the combination.

801438



Are Liability Insurance Premium Increases Justified?

This Journal seriously questions whether the revisions of premium rates on professional liability insurance, recently instituted in Alabama and twenty-nine other states and the District of Columbia, are justified. Despite the fact that the National Bureau of Underwriters takes the position that the rising cost of malpractice claims has forced a general boost in premiums in all but ten states, it is doubtful that such a position is true in Alabama unless the practice of quickly settling claims out of court is responsible.

The physician, generally speaking, has the final voice in whether a claim should be settled or adjudicated before a judge and jury. No doubt he gives consideration to the adverse publicity derived in a public trial. The insuror also finds out of court settlements for questionable claims more economical.

But does quick and cheap settlement really benefit the medical profession? On the contrary do they not encourage more false and cheap claims?

Professional liability rates have been increased 16 per cent in Alabama effective this year. This is a higher increase than was imposed in any other Southern state although not as high as Arizona, where the rates went up 50 per cent, Washington (48 per cent increase) and California (3.6 per cent increase). In New Hampshire rates were reduced by 10 per cent.

The NBCU also announced a new classification which will include anesthesiologists, neurosurgeons, obstetricians - gynecologists, orthopedists, plastic surgeons, and otolaryngologists who perform plastic surgery. These specialists will pay higher rates than would have applied if this change had not taken place.

Following are the states where rates are being revised and the percentage changes in rate level. In ten of the states the revisions do not result in any change in the overall statewide rate level.

Alabama	+16.0
Alaska	No Change
Arizona	+50.0
Arkansas	+15.0
California	+32.6
Colorado	+30.0
Connecticut	+10.0
Delaware	+30.0
District of Columbia	No Change
Georgia	+10.0
Idaho	+10.0
Indiana	No Change
Iowa	+10.0
Maine	No Change
Massachusetts	No Change
Michigan	+20.0
Mississippi	No Change
Missouri	+15.0
Montana	+20.0
Nebraska	No Change
Nevada	No Change
New Hampshire	—10.0
New Mexico	+20.0
Ohio	+10.0
Oregon	+20.0
South Dakota	No Change
Texas	+25.0
Utah	+30.0
Vermont	No Change
Washington	+48.0
Wyoming	+10.0

In the five-year period from 1959 through 1963, the NBCU pointed out, Bureau companies sustained large underwriting losses on professional liability coverages for both physicians and surgeons.

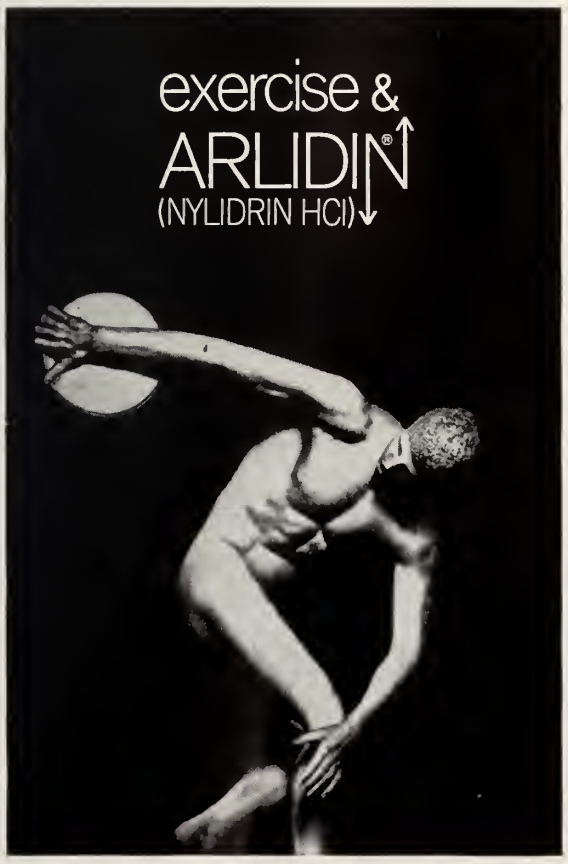
On the physician classes, losses and company operating expenses amounted to $140

for each $100 in premiums during 1959-1963. On the surgeon classes, losses and expenses totaled $151 for each $100 in premiums during the same period.

The NBCU said that, in view of the extremely adverse experience in these lines, these rate revisions must be considered "moderate."

Contrarily, this Journal believes that the underwriters have not presented a true picture of the situation which exists in Alabama today and that conferences should be held to determine whether their own settlement procedures, rather than the culpability of physicians, has not increased their costs.

This Association should call upon the Insurance Commissioner of Alabama to use the resources of his department to determine whether the physicians of the state are being forced to pay for the quick and easy settlement of claims which, in the final analysis, may do more damage to a physician's reputation than the pittance received by the claimant.



Guest Editorial

How To Legislate Health

It will soon be three years since the report of the President's Commission on Heart Disease, Cancer and Stroke hit the press and air waves with stunning abruptness. The full impact was blunted by the overreaching, overpowering emergence of Medicare. Yet the health care patterns proposed by the President's Commission may be the more far-reaching for doctors and patients.

Equally important with the content of the report was the mechanism of the development of the study and the lobby-political-power combination which drove through the Washington roadblocks that generally assure gradualism and review rather than impatience and radicalism in legislative offerings. The whole story is told in the December issue of "*The Atlantic*" magazine in an article, "*The Health Syndicate: Washington's Noble Conspirators*" by Elizabeth Brenner Drew.

"Health ranks high up with motherhood as a condition to be espoused, and that helps to explain the seeming ease with which a small dedicated band of research-and-cure devotees have combined their ideas, concerns, and intimations of mortality into one of the most effective lobbies Washington has ever seen," states Mrs. Drew.

The story begins with the marriage of Albert Lasker, an advertising genius, and Mary Woodard Reinhardt, a businesswoman and promoter of public causes, in 1940. In 1942 the Albert and Mary Lasker Foundation was established after Lasker's retirement from the advertising business. Initially, the Foundation promoted "seed money" for research projects, particularly in mental health and birth control and subsequently in cancer—after their cook was afflicted with this disease.

From these small beginnings, the Laskers developed powerful connections in Washing-

ton. Foremost among these was the friendship with Daniel Mahoney, a controlling power in the Cox newspaper chain, the leading Democratic syndicate in the country. Mahoney provided Mrs. Lasker with access to Congressional press galleries and news media through which to press her cause.

In 1944, under the guided direction of Senator Claude Pepper (Democrat-Florida), Congress started its escalation of government participation in health research. At that time the National Institutes of Health and its affiliated Cancer Institute operated on a budget of $2.5 million. By 1967, the NIH budget had rocketed to $1.4 billion.

Behind this explosion, Mrs. Drew weaves the chronicle of *"the Health Syndicate."* The key figures include Senate Majority Leader Mike Mansfield, John Fogarty (Democrat-Rhode Island), Lister Hill (Democrat-Alabama), Mrs. Harry Truman, the Kennedy softball teams that stopped for beer in Mrs. Mahoney's house, Mike Gorman, the powerfully effective lobbyist for the syndicate, and the medical experts—Mike DeBakey, Sidney Farber, Paul Dudley White, Karl Menninger and Howard Rusk. With recurring consistency, these individuals appeared on the key committees and commissions controlling both the direction of research and the granting of awards. When the NIH budget reached $400 million in 1960 (from $53 million in 1953) Republicans demanded a study. Senator Hill complied by appointing the *"Committee of Consultants on Medical Research,"* which included DeBakey, Farber and others of the syndicate. When the Commission on Health Disease, Cancer and Stroke was proposed by the Lasker forces (stroke being included—though commonly a manifestation of the same pathogenesis as heart disease—"to appeal to President Kennedy, whose father had suffered a stroke") the chairman was DeBakey and the members included Mrs. Mahoney, Mrs. Truman, Farber and Rusk.

The whole health syndicate movement has had a carefully contrived public relations oriented campaign. Mrs. Lasker was instrumental in changing the name of the Institute of Microbiology to the Institutes of Allergy and Infectious Diseases. "Whoever died of microbiology?" one Congressman asked her.

Mike Gorman is the exacting coach of the medical witnesses. "I forbid doctors to use the term 'myocardial infarction.' I say, 'You call it heart attack or you leave the room.' That and 'no smoking' are the rules . . . Most doctors are not enthusiastic, not used to the verbal give and take. The Rusks, Farbers, DeBakeys have the evangelistic pizzaz."

Mrs. Drew's thoughtful exposition is not developed from a bias of discredit or disrespect. She does express alarm, though, about the power concentration in the hands of so few, the arbitrary, almost religious emphasis on certain diseases disproportionately concentrated in the elderly, and the unsound, impatient push for "cure before cause" in the field of cancer, and the blind devotion to the categorical approach to the management of health research and delivery of health services.

She identifies other forces emerging to shape the future of medical care, "the demands of the labor movement, the involvement of the insurance companies, the restiveness of the medical students." The convergence of these forces is toward comprehensive health care to correct the "disorganization and inequalities" in medical services. As usual the leadership of the medical profession is unsung despite the fact that its accomplishments already approach comprehensive care much more closely than the impulsiveness of the Laskers and DeBakeys will admit.

From THE BULLETIN of The Los Angeles County Medical Association, January 4, 1968.

Today you work harder
than ever to maintain
American medicine at
the high level that assures
everyone a better . . .
and longer . . . life.

Blue Shield is more vital
now than ever before.
Your support of Blue
Shield helps strengthen
the case for voluntary
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Cardiopulmonary Resuscitation In Alabama

Chester White, Jr., M. D.
and
Charles E. Porter, M. D.

The principles and practice of cardio-pulmonary resuscitation (CPR) as well as the experience of many physicians with approved methods, have now been widely reported. The entire subject has lately been reviewed by an Ad Hoc Committee (Editor's Note: underscore is Dr. White's) on Cardio-Pulmonary Resuscitation of the Division of Medical Sciences, National Academy of Science—National Research Council (NAS-NRC)[1]. Proper methods for emergency resuscitation, and also for definitive post-resuscitative therapy, have been detailed by authoritative panels in a unanimous fashion which is unusual in the annals of medicine. The scientific basis and the techniques of resuscitation and of subsequent care have been further elaborated by selected knowledgeable groups supported by and acting in cooperation with the American Heart Association (AHA). The institution of CPR instruction programs at state levels is going on presently all over the country with the support of *affiliates* of AHA.

The broad implications of this program are manifold; the first clearly emergent inference is that victims of accident, drowning, electric shock, and other catastrophes may frequently be resuscitated if treated immediately by appropriate means; the second is that knowledge of the approved therapy should be widely enough disseminated among the population at large that any person whose respiratory or cardiac functions (or both) are temporarily at a standstill due to reversible conditions will have reasonable hope of complete recovery as a result of support by an individual on the scene who can implement the approved procedures. Such a "resuscitator" might be a physician, a nurse, a comrade in the armed services, a policeman, fireman, sheriff, ambulance driver, or anyone concerned with public health and welfare. The *American Heart Association* has accepted the challenge of these implications and is attempting to diffuse knowledge of CPR so that its benefits will be available to *all physicians, nurses and laity in safety and high risk industry groups.*

A number of things are also implicit in the present status of CPR, and in the aggressive instructional programs of the AHA, for the physician. Clearly since both emergency and definitive therapy have been studied in depth and agreed upon by the most authoritative scientists and physicians, no practitioner is exempt from the responsibility of diagnosis, emergency care, and/or follow-up treatment of the victims of unexpected cessation of circulation and ventilation; in view of the availability of authoritative information, one could hardly be complacent on this issue, were he so disposed. A second matter of concern to the profession is that for purposes of instructing nurses or the laity, the quality and content of courses must be uniform and must include, specifically, the approved (Editor's Note: underscore is Dr. White's) material if we are to avoid the confusion which would result if a variety of methods were taught to individuals who have no knowledge and experience. It is the responsibility of doctors to assume leadership in teaching correct techniques of emergency CPR to appropriate groups. It is clear that if a doctor who teaches methods other than those proposed by the American Heart Association (an association *whose policies are guided by* physicians) there will be great confusion among lay resuscitators as to what is authoritative on

Dr. White and Dr. Porter are co-chairmen of the Cardio-Pulmonary Resuscitation Committee, Alabama Heart Association.

1. J. Am. Med. Assoc. 198:374, 379, (Oct. 24) 1966

the question and the Alabama program will not progress as efficiently as it ought.

Recognizing these concepts and responsibilities the AMA and MASA have endorsed the principles and practice of CPR, which were approved by NRC-NAS and made the basis of courses being developed by the American Heart Association. MASA has specifically approved the program of the Alabama Heart Association (*the AHA affiliate in Alabama*) for this state and has stated the intent of organized medicine to support the activities of *Alabama Heart's* Committee on Cardiopulmonary Resuscitation. This Committee is made up of physicians together with representatives from nursing, hospital administration, public safety agencies and hazardous industries. This central committee has already given a number of instructors' courses and is currently attempting to form satellite committees in several parts of the state which will assume regional initiative in this important endeavor.

The Committee needs the cooperation of all Alabama physicians, not only in the form of overt approval but also as active participants and instructors for concerned professional and lay groups. It may well be said of this undertaking that "the life you save may be your own."

★ ★ ★

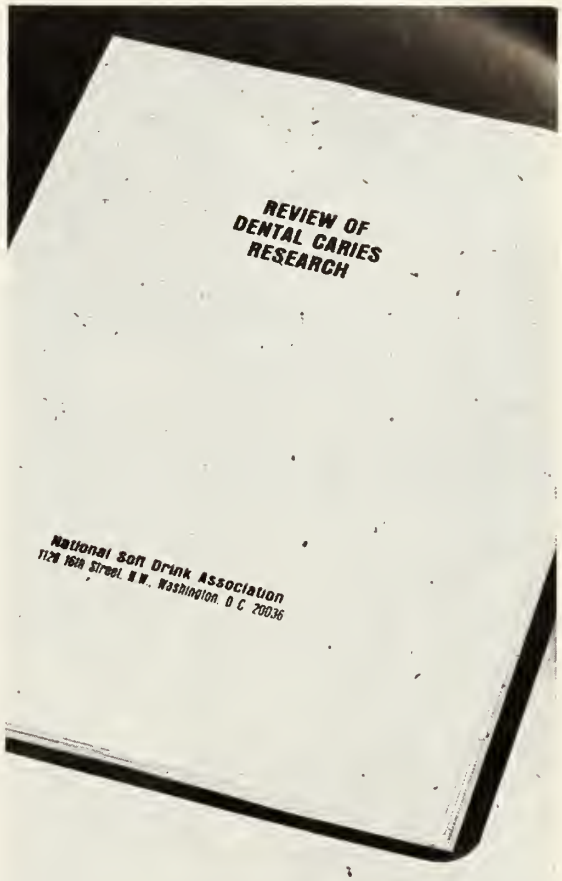
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For Annual Session

See Page 1107-1108

★ ★ ★



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Alabama Department of Public Health

Dental Health Education Program Started

By Catherine G. Lamar

The Bureau of Dental Health, Alabama Department of Public Health, has embarked upon the first phase of a project designed to evaluate its dental health education program.

Begun in 1965, the educational program is structured around the use of a comprehensive 100 page book entitled "A Guide for Teaching Dental Health in Alabama Schools." Available free of charge to teachers and education students in all schools throughout the state, the program is designed to better prepare classroom teachers to teach dental health.

Distributed through in-service training conferences, teacher workshops, or student teacher education classes, the program has been incorporated into the curriculum of 61 school systems since its inception. Over 10,000 of the 15,000 elementary school teachers in Alabama have received this guide; over 400,000 elementary students have received classroom instruction in dental health.

A major step in any educational process requires measurement and evaluation of results to determine if objectives have been achieved. In October of 1967, under the leadership of N. L. Shory, D. D. S., bureau director, and Mrs. Barbara Vondrak, dental hygienist consultant, implementation of this phase began.

After consultation with educational and testing specialists at Auburn University, the University of Alabama, and Air University at Maxwell Air Force Base, a workable plan was developed: (1) a reliable tool, or test, must be developed with which to gauge results; (2) this test must be administered to a sample group both before and after receiving dental health instruction in the classroom; (3) pre-test and post-test scores must be compared to achieve a valid evaluation.



Mrs. Barbara Vondrak (center), dental hygienist consultant, Bureau of Dental Health, goes over dental health test with Mrs. Sybil Robinson (left), coordinator of elementary instruction, Auburn City School system, and Mrs. Eleanor Alley (right), primary teacher, Garry Woods School in Auburn.

Drafting a suitable test was the first, and perhaps the most difficult, task. Some problems included determining a vocabulary and sentence structure appropriate for elementary students and assuring that test questions were correlated with material included in the guide.

Through use of readability formulas and by setting up subject matter-objective charts

(Continued on Page 1019)

(Continued from Page 1014)

appropriate questions on each topic were developed. Two tests resulted: one designed for grades 1-3 and the other for grades 4-6.

Elementary grade students in the Auburn city school system were selected as the sample group to be used to test the reliability and validity of the test itself. It was administered in January to students in grades 1 through 6.

Following this experiment the test will be analyzed and any necessary revisions made. It will then be incorporated into the dental health educational program of the bureau to serve as a guide for future testing of Alabama school children.

Completion of this phase marks another step forward in the department's program of placing increased emphasis on preventive dentistry and dental health education while maintaining a rational degree of treatment services.

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

Lederle

330-8/6135

BUREAU OF VITAL STATISTICS
PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

November 1967

Live Births / Deaths / Causes of Death	Number Registered During November 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	5,176	3,351	1,825	17.7	18.3	19.6
Deaths	2,674	1,768	906	9.1	9.1	9.6
Fetal Deaths	108	53	55	20.4	19.8	22.5
Infant Deaths—						
under one month	107	65	42	20.7	19.8	20.7
under one year	159	80	79	30.7	30.0	33.6
Maternal Deaths					3.7	5.2
Causes of Death						
Tuberculosis, 001-019	17	9	8	5.8	5.9	7.3
Syphilis, 020-029	4	1	3	1.4	2.1	1.0
Dysentery, 045-048					0.3	
Diphtheria, 055	2		2	0.7		0.7
Whooping cough, 056						
Meningococcal infections, 057	1	1		0.3	0.7	1.0
Poliomyelitis, 080, 081	†1	1		0.3		
Measles, 085						
Malignant neoplasms, 140-205	376	258	118	128.4	127.5	133.5
Diabetes mellitus, 260	53	32	21	18.1	13.1	16.1
Pellagra, 281						
Vascular lesions of central nervous system, 330-334	368	235	133	125.7	128.9	139.1
Rheumatic fever, 400-402	3	1	2	1.0	0.3	0.3
Diseases of the heart, 410-443	891	633	258	304.3	308.2	301.7
Hypertension with heart disease, 440-443	114	47	67	38.9	36.3	41.2
Diseases of the arteries, 450-456	72	55	17	24.6	24.5	28.3
Influenza, 480-483	4	2	2	1.4	0.3	0.7
Pneumonia, all forms, 490-493	73	44	29	24.9	28.0	29.4
Bronchitis, 500-502	11	9	2	3.8	1.7	2.4
Appendicitis, 550-553	1	1		0.3	1.4	
Intestinal obstruction and hernia, 560, 561, 570	9	7	2	3.1	3.8	5.9
Gastro-enteritis and colitis, under 2, 571.0, 764	3	1	2	1.0	2.1	3.1
Cirrhosis of liver, 581	16	13	3	5.5	5.2	6.6
Diseases of pregnancy and childbirth, 640-689					3.7	5.2
Congenital malformations, 750-759	31	23	8	6.0	5.5	5.5
Immaturity at birth, 774-776	31	15	16	6.0	5.8	6.4
Accidents, total 800-962	207	144	63	70.7	63.9	61.9
Motor vehicle accidents, 810-835, 960	112	79	33	38.2	33.9	32.9
All other defined causes	360	232	128	122.9	126.4	133.9
Ill-defined and unknown causes, 780-793, 795	140	51	89	47.8	45.6	57.3

† Late effects

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1968

	Dec.	Jan.	*E. E. Jan.
Tuberculosis	80	123	109
Syphilis	68	73	136
Gonorrhea	330	469	346
Chancroid	1	2	3
Typhoid fever	0	0	2
Undulant fever	0	0	0
Amebic dysentery	2	0	2
Scarlet fever & strep. throat	762	462	162
Diphtheria	5	0	1
Whooping cough	5	23	6
Meningitis	4	5	5
Tularemia	0	0	1
Tetanus	2	1	1
Poliomyelitis	0	0	0
Encephalitis	0	0	1
Smallpox	0	0	0
Measles	4	14	126
Chickenpox	38	99	136
Mumps	163	102	81
Infectious hepatitis	23	31	35
Typhus fever	1	0	0
Malaria	2	1	0
Cancer	713	367	494
Pellagra	0	0	0
Rheumatic fever	13	9	22
Rheumatic heart	21	15	37
Influenza	14,602	40,821	187
Pneumonia	490	613	318
Rabies—Human cases	0	0	0
Pos. animal heads	4	4	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

January 1968

Examination of Intestinal Parasites	2,037
Examination of Malaria	1
Examination for Salmonella & Shigella (blood-feces-urine-food)	232
Examination for tubercle bacilli	4,588
Examination for gonococci	2,114
Serological tests for Syphilis	30,734
FTA	50
Darkfield	1
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	62
Staphylococcus (cultures for isolation and confirmation)	332
Examinations for diphtheria (cultures for isolation and confirmation)	19
Streptococci examinations	3,716
Mycology	32
Agglutinations	17
Vincent's infection	9
Complement fixation tests	212
Tests for Phenylketonuria (PKU)	7,373
Cytology	1,497
Water examinations	2,877
Milk and Dairy products examinations	4,744
Sea food examinations	204
Examination for Negri bodies (smears & animal inoculations)	256
Virology	47
Rh factor bloods	720
Miscellaneous	898
Total	62,772

Health Education-Care Theme Of AMA Conference April 4-6

"Health Education and Health Care Services" will be the theme of the AMA's 3rd National Conference on Health Education to the Public, April 4-6, at the Pick Congress Hotel, Chicago.

The three-day program will center around the physician's role in health education and community health, as well as the responsibility of the professional health educators. One session will be devoted to the psychological influences on health behavior.

Granville W. Larimore, M. D., first deputy commissioner for the New York State Department of Health and a member of the AMA's Council on Environmental and Public Health, will deliver the keynote address.

It is hoped that state and many local medical societies will be represented at the Conference. Those interested should contact the AMA's Department of Health Education.

Priority For Vehicle Safety

The AMA Committee on Medical Aspects of Automotive Safety has long proposed a shoulder-lap system. In April, 1967, it presented a "priority for vehicle safety" to the Engineering Advisory Committee of the Automobile Manufacturers Association, part of which asked for an overall seat design development to include a lap belt, upper torso restraint and adequate head protection.

An interesting sidelight to the subject concerns the safety of pregnant women while traveling in an automobile. The AMA Committee believes that a pregnant woman should definitely use an automobile seat belt and shoulder belt, the same as anyone else, and that both she and the fetus are safer than without such protection, provided the belt across the lap is worn as low on the pelvis as possible.

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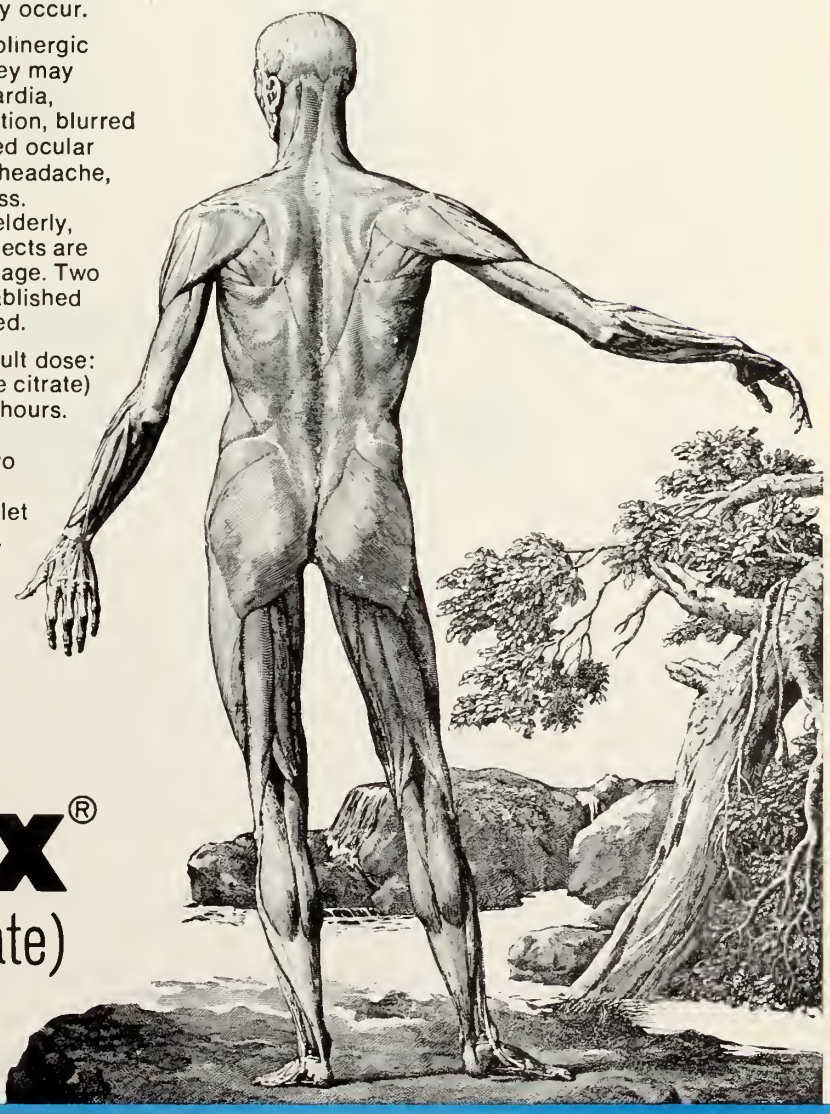
WARNING: Transient lightheadedness or dizziness following NORFLEX-INJECTABLE may occur.

SIDE EFFECTS: Due mainly to anticholinergic action and usually at high dosage. They may include dryness of the mouth, tachycardia, palpitation, urinary hesitancy or retention, blurred vision, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, and drowsiness. Infrequently, mental confusion in the elderly, urticaria or other dermatoses. Side effects are usually eliminated by reduction in dosage. Two cases of aplastic anemia, with no established causal relationship, have been reported.

DOSAGE: **INJECTABLE** — Average adult dose: one ampul, 2 cc. (60 mg. orphenadrine citrate) I.M. or I.V. May be repeated every 12 hours. Relief may be maintained with one NORFLEX tablet b.i.d. **TABLETS** — Two tablets per day for adults, one in the morning, one in the evening. Each tablet contains 100 mg. orphenadrine citrate.

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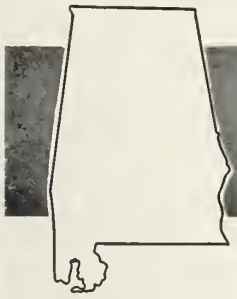
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A vital question. For if early diagnosis and treatment can cure cancer, obviously regular health checkups are essential. In a survey conducted for the Society, we discovered that only 26% of those questioned had such regular checkups. But 90% said, *if their physicians told them to do so,* they would have annual checkups.

This confirmed what we have long known—your key role, doctor, in *activating* your patients in good health practices. We alert the public with facts about cancer. You follow through by urging regular checkups. A life-saving combination.

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Birmingham, Alabama 35205



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The Society meets regularly on the first Tuesday of each month at 7:30 P. M.

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Board of Censors: James H. Crenshaw, M. D., Centreville, Chairman; J. Ethel Montgomery, M. D., West Blocton; William O. Owings, M. D., Brent; Cooper Nicholson, M. D., Centreville; and William H. Weatherford, M. D., Centreville.

Delegates: William O. Owings, M. D., Brent; and William H. Weatherford, M. D., Centreville

Alternate Delegates: James N. Crenshaw, M. D., Centreville; and J. Ethel Montgomery, M. D., West Blocton

Blount

President, J. L. Wittmeier, M. D., Oneonta

Vice-President, Roland E. Murphree, M. D., Oneonta

Secretary-Treasurer, Roland E. Murphree, M. D., Oneonta

Board of Censors: W. R. Sutton, M. D., Chairman, Blountsville; Ira B. Patton, M. D., Oneonta; C. V. Hendrix, M. D., Oneonta; E. W. Gordon, M. D., Oneonta, and J. L. Wittmeier, M. D., Oneonta

Delegates: Ira B. Patton, M. D., Oneonta, and Roland E. Murphree, M. D., Oneonta

Alternate Delegates: E. W. Gordon, M. D., Oneonta; and W. R. Sutton, M. D., Blountsville

Bullock

President, Sidney A. Cohn, M. D., Union Springs

Vice-President, J. K. Haygood, M. D., Union Springs

Secretary-Treasurer, H. S. Banton, Jr., M. D., Union Springs

Board of Censors: H. S. Banton, Jr., M. D., Chairman, Union Springs; Murray Smith, M. D., Tuskegee; O. Emfinger, M. D., Union Springs; Sidney A. Cohn, M. D., Union Springs; and G. E. Fisher, M. D., Union Springs

Delegates: Sidney A. Cohn, M. D., Union Springs, and Murray Smith, M. D., Tuskegee

Alternate Delegates: J. K. Haygood, M. D., Union Springs, and H. S. Banton, Jr., Union Springs

The Society meets regularly on the second Wednesday of each month at 4:30 P. M.

Calhoun

President, John R. Morris, M. D., Anniston

Vice-President, Russell J. Leonard, M. D., Anniston

Secretary, J. Patrick Stewart, M. D., Anniston

Treasurer, George Gibbons, M. D., Anniston

Board of Censors: R. Earl Jones, M. D., Chairman, Anniston; Warren Sorrell, M. D., Anniston; T. C. Donald, M. D., Anniston; Gerald Woodruff, M. D., Anniston; and Gaston McGinnis, M. D., Anniston

Delegates: F. C. Ballard, M. D., Anniston; B. D. McAnnally, M. D., Anniston; and R. C. Simmons, Jr., Anniston

Alternate Delegates: J. W. Harner, M. D., Anniston; H. L. Laws, M. D., Anniston; and J. R. Morris, M. D., Anniston

The Society meets regularly on the third Tuesday of each month at 7:30 P. M.

Chambers

President, N. A. Wheeler, M. D., LaFayette

Vice-President, Hugh McCulloh, M. D., Lanett

Secretary-Treasurer, Dave McMurrain, M. D., Shawmut

Board of Censors: S. C. Simmons, M. D., Chairman, Langdale; R. S. Hutchinson, M. D., Lanett; J. R. Gladden, M. D., Langdale; M. C. Hunt, M. D., Fairfax; and F. M. Powell, M. D., Shawmut

Delegates: F. M. Powell, M. D., Shawmut; and R. S. Hutchinson, M. D., Lanett

Alternate Delegates: N. A. Wheeler, M. D., LaFayette; and J. R. Gladden, M. D., Langdale

Covington

President, Charles G. Tomberlin, M. D., Andalusia

Vice-President, Morgan J. Moore, M. D., Andalusia

Secretary-Treasurer, C. D. McLeod, M. D., Andalusia

Board of Censors: J. Paul O'Neal, M. D., Chairman, Florala; Wheeler A. Gunnels, M. D., Opp; R. E. Vickery, M. D., Andalusia; W. G. Cumbie, M. D., Andalusia; and A. B. Lee, M. D., Opp

Delegates: C. D. McLeod, M. D., Andalusia; and J. P. O'Neal, M. D., Florala

The Society meets regularly Bi-monthly on the first Tuesday at 7 P. M.

Crenshaw

President, James E. Kendrick, M. D., Luverne

Vice-President, D. V. Vanderhoeven, M. D., Luverne

Secretary-Treasurer, James E. Kendrick, M. D., Luverne

Board of Censors: James C. Ray, M. D., Chairman, Luverne; James E. Kendrick, M. D., Luverne; D. V. Vanderhoeven, M. D., Luverne; R. F. Dodds, M. D., Brantley; L. A. Windham, M. D., Luverne

Delegates: D. V. Vanderhoeven, M. D., Luverne, and L. A. Windham, M. D., Luverne

Alternate Delegates: R. F. Dodds, M. D., Brantley, and J. C. Ray, M. D., Luverne

The Society meets regularly on the third Tuesday of each month at 7 P. M.

Cullman

President, John T. Morris, M. D., Cullman

Vice-President, L. H. Clemmons, M. D., Cullman

Secretary-Treasurer, James S. Richards, M. D., Cullman

Board of Censors: R. F. Williford, M. D., Chairman, Cullman; Roy W. Williams, M. D., Cullman; E. B. Barnes, M. D., Cullman; L. H. Clemmons, M. D., Cullman; J. G. Daves, M. D., Cullman

Delegates: L. H. Clemmons, M. D., Cullman, and Frank Stitt, Sr., M. D., Cullman

Alternate Delegates: R. F. Williford, M. D., Cullman, and Roy W. Williams, M. D., Cullman

The Society meets regularly on the first Monday night of the month at 6:30 P. M.

Dale

President, L. D. McLaughlin, M. D., Ozark
Vice-President, R. F. Zumstein, M. D., Ariton
Secretary-Treasurer, G. R. Smith, M. D., Ozark

Board of Censors: N. W. Holman, M. D., Chairman, Ozark; B. D. Petrey, M. D., Ozark; G. R. Smith, M. D., Ozark; T. D. Caffey, M. D., Ozark; L. D. McLaughlin, M. D., Ozark

Delegates: T. D. Caffey, M. D., Ozark; and G. L. Andrews, M. D., Ozark

Alternate Delegates: R. F. Zumstein, M. D., Ariton; and R. J. McLaughlin, M. D., Ozark

County Society Meetings

Talladega

Dr. W. H. Y. Smith, Director, Bureau of Preventable Diseases, State Department of Public Health, was the principal speaker at the January meeting of the Talladega County Medical Society in Sylacauga. His subject was "Syphilis as a Disease" and its incidence in Talladega County.

Fourteen members were present. Dr. E. H. Roberts presided.

Escambia

Dr. John Shriner, a pediatrician from Mobile, Alabama spoke on "Pediatric Allergies," at the January meeting of the Escambia County Medical Society.

Dr. Carroll S. Crawford, President, presided at the meeting. Fourteen members were present.

Vital Statistics

NEW MEMBERS

Butler County

Stabler, Ernest Vernon, Jr., Manningham Rd., Greenville, Ala. 36037.

Chambers County

Santana, Alberto Harlow, Wheeler Clinic, Lafayette, Ala. 36862.

Colbert County

Flippen, Joseph Wheeler, III, 1111 S. Raleigh St., Sheffield, Ala. 35660.

Cullman County

Bownes, Eugene Alloysius, 118 E. 2nd St., Cullman, Ala. 35055.

Etowah County

Abernathy, Frank, Jr., Route 5, Gadsden, Ala. 35901.

Jefferson County

Brown, William Alton, Jr., 412 4th Ave., Bessemer, Ala. 35020.

Cloyd, Walter Lee, 1529 N. 25th St., Birmingham, Ala. 35204.

Grimes, Bennie Matthew, 1529 N. 25th St., Birmingham, Ala. 35204.

Moody, Frank Gordon, 1919 S. 7th Ave., Birmingham, Ala. 35233.

Wilson, Thomas Alexander Symington, 1318 S. 19th St., Birmingham, Ala. 35205.

Lowndes County

Meadows, Henry Howard, Jr., P. O. Box 236, Hayneville, Ala. 36040.

(Continued on Page 1029)



SAN FRANCISCO AMA '68

The excitement of San Francisco's famous sites is waiting for you. Chinatown, the Golden Gate Bridge, Fisherman's Wharf, Telegraph Hill, will add to five memorable and stimulating convention days. Plan to attend now and look forward to an excellent convention in a city of unlimited charm.

Continue your postgraduate education with a varied program of • four General Scientific Meetings on Auto Accidents, Health Care Planning, Infectious Diseases, Treatment of Advanced Malignant Disease • 23 Section Programs • Color Television • Medical Motion Pictures • and over 600 scientific and industrial exhibits. All are designed to bring you up-to-date on what is making medical news today. You will attend lectures by the nation's outstanding medical authorities and discuss with them the significant advances in medicine.

In addition the AMA TV network will present more than 40 hours of convention news.

Reserve now for the Scientific Awards Dinner in honor of the Scientific Award Winners—Wednesday, June 19, 1968. Since space is limited, we suggest you make your reservations before June 3, 1968. Tickets are $10.00 each, payable in advance.

The complete scientific program, plus forms for advance registration and hotel accommodations, will be featured in JAMA, May 6, 1968.

SAN FRANCISCO, CALIFORNIA · JUNE 16-20, 1968

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Help clear up that miserable stuffed-up feeling with Dimetapp. Each hard-working Extentab brings welcome relief from the stuffiness, drip and congestion of upper respiratory conditions for up to 10-12 hours. Yet, patients seldom experience drowsiness or overstimulation. The key to success is the Dimetapp formula: Dimetane (brompheniramine maleate)—along with phenylephrine and phenylpropanolamine, two time-tested decongestants. They get the job done... in a hurry.

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Contraindications: Hypersensitivity to antihistamines. Not recommended for use during pregnancy.
Precautions: Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.
Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia, have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.
Dosage: 1 Extentab morning and evening.
Supplied: Bottles of 100 and 500.

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Dimetapp® Extentabs®
(Dimetane® [brompheniramine maleate], 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.)
up to 10-12 hours clear breathing on one tablet



If hypothyroidism leaves your patient feeling like this...

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Indications: Hypothyroid conditions. **Contraindications:** Thyrotoxicosis, acute myocardial infarctions unless associated with hypothyroidism. In hypothyroidism with hypoadrenalism coadministration of corticoids with LETTER® is recommended. **Precautions and Side Effects:** Excessive dosage may result in diarrhea, cramps, palpitation, nervousness, rapid pulse, sweating. If symptoms appear, discontinue medication for several days, then reinstitute at a lower level. Since myxedema patients with heart disease may suffer seriously from abrupt increases in dosage, caution should be exercised in adjusting dosage. **Dosage:** Generally, the initial adult dosage is 0.1 mg. daily. This may be increased in small increments every one to three weeks until proper metabolic balance is achieved. **Available:** Bottles of 100 tablets, in six potencies: 0.025 mg. (violet), 0.05 mg. (peach), 0.1 mg. (pink), 0.2 mg. (green), 0.3 mg. (yellow), and 0.5 mg. (white).

ARMOUR PHARMACEUTICAL COMPANY • CHICAGO, ILLINOIS

(Continued from Page 1026)

Montgomery County

Stern, Louis H., 2105 E. South Blvd., Montgomery, Ala. 36111.

DECEASED

Calhoun County

Woolf, Joseph H., 112½ N. Center, Piedmont, Ala. 36272—deceased.

Choctaw County

Allen, Ralph Hughley, Butler, Ala. 36904—deceased September 26, 1967.

Jefferson County

Gaines, Cecil Dean, Woodward Building, Birmingham, Ala. 35203—deceased November 15, 1967.

Orton, Allen E., Muscoda Hospital, Bessemer, Ala. 35020—deceased.

CHANGE OF ADDRESS

Chambers County

McCrory, Ellann, present Lanett, Ala. 36863, to Radiology Department Lanier Hospital, Langdale, Ala. 36864.

McMurrain, K. D., Jr., present Shawmut, Ala. 36876, to West Point-Pepperell, Inc., P. O. Box 366, West Point, Ga. 31833.

Covington County

Moore, Morgan J., present Andalusia, Ala. 36420, to P. O. Box 758, Professional Center, Andalusia, Ala. 36420.

Escambia County

Goldsmith, Edward F., present Atmore, Ala. 36502, to P. O. Box 380, Atmore, Ala. 36502.

Jackson County

Hodges, Emmett J., present Scottsboro, Ala. 35768, to 915 S. Broad St., P. O. Box 370, Scottsboro, Ala. 35768.

Jefferson County

Cord, Richard H., present Birmingham, Ala. 35205, to 1025 S. 18th St., Suite A., Birmingham, Ala. 35205.

Farmer, Harry R., present Como, Mississippi 38619, to Fairfield, Ala. 35064.

Litzinger, Morgan J., Jr., present Birmingham, Ala. 35209, to 3036 Brook Hollow Lane, Birmingham, Ala. 35243.

Purvis, J. T., present Highpoint, North Carolina 27262, to 1717 Bellevue Ave., Richmond, Va. 23277.

Lauderdale County

Hyatt, Arthur J., present Florence, Ala. 35630, to 225 Queensbury Drive, Huntsville, Ala. 35802.

Mobile County

Brier, Robert L., present Mobile, Ala. 36604, to 25 Midtown Park W., Mobile, Ala. 36606.

Green, Edward J., present Mobile, Ala. 36607, to 1507 Springhill Ave., Mobile, Ala. 36604.

Montgomery County

Hughes, William D., present Montgomery, Ala. 36106, to 1739 Croom Drive, Montgomery, Ala. 36106.

McCall, Doy L., Jr., present Montgomery, Ala. 36104, to 311 Dallas Ave., Selma, Ala. 36701.

Morgan County

Copeland, Sage D., present Decatur, Ala. 35601, to 2316 Horsetree Place S. E., Decatur, Ala. 35601.

Randolph County

Short, William B., Jr., present Roanoke, Ala. 36274, to 3022 Puanani St., Likue, Kauai, Hawaii 96766.

TRANSFER

Marshall County

Roper, Robert Rollin, present Jasper, Ala. 35501, to Albertville-Boaz Hospital, Boaz, Ala. 35957. (Transfer member from Walker County Medical Society to Marshall County Medical Society.)

Chances are she'll be fever-free in less than 48 hours...



with Erythrocin®-Sulfas

ERYTHROMYCIN-
TRISULFAPYRIMIDINES,
ABBOTT

FOR RAPID CLINICAL RESPONSE

In a recent series of clinical studies, Erythrocin-Sulfas was used to treat 516 febrile cases of suspected bacterial infection. Of these, *85.5% were completely afebrile within 48 hours.*

FOR WIDE BACTERIAL COVERAGE

Among the total of 661 patients (febrile and afebrile) who could be evaluated, the *clinical cure rate* was 92.2%*

FOR OPTIMAL PATIENT ACCEPTANCE

Three forms were used in the studies, prescribed according to the age and personal preferences of individual patients:

Erythrocin® ethyl succinate-**Sulfas Granules**
erythromycin ethyl succinate-trisulfapyrimidines
for oral suspension

Erythrocin® ethyl succinate-**Sulfas Chewable**
erythromycin ethyl succinate-trisulfapyrimidines
chewable tablets

Erythrocin® stearate-**Sulfas Filmtab®**
erythromycin stearate-trisulfapyrimidines tablets

Please see Brief Summary on next page.

ABBOTT

*Clinically cured included patients with complete symptomatic relief and those who had partial symptomatic relief within 72 hours with subsequent clinical cure.

803446

BRIEF SUMMARY FOR **Erythrocin®-Sulfas**

Indications For mixed infections which are more susceptible to the combination than to either agent alone. These may include susceptible gram-positive and/or gram-negative mixed infections. Not recommended in the treatment of infections expected to respond to full therapeutic doses of the antibiotic or sulfonamide alone.

Contraindications Known hypersensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, in premature or in newborn infants during first week of life.

Warnings As with other forms of sulfonamide therapy, use only after critical appraisal in patients with liver or kidney damage, urinary obstruction, or blood dyscrasias. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests when used intermittently or for long periods.

Precautions, Side Effects Use sulfonamides with caution in patients with a history of allergy, including asthma. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent; if encountered appropriate countermeasures (e.g. epinephrine, steroids, etc.) should be administered and the drug withdrawn. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. In prolonged therapy, or when high dosage is used, maintain an alkaline urine. If oliguria occurs, discontinue therapy. Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin; generally improved by reduction of dosage.

If overgrowth of nonsusceptible organism occurs, withdraw the drug and institute appropriate treatment.

Adverse Reactions Sulfonamide therapy may be associated with headache, nausea, vomiting, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, urticaria, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria. 803446

ABBOTT



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—Dr. Dwight L. Wilbur, president-elect of the American Medical Association, warned that physicians will resist any effort to establish national medical standards under the Regional Medical Programs.

But he predicted that the medical profession would cooperate enthusiastically if the programs are carried out on a voluntary cooperative basis.

Dr. Wilbur spoke at a conference on Regional Medical Programs sponsored by the Department of Health, Education and Welfare.

"If the program in fact is clearly one designed to catalyze and to facilitate the development of better programs than now exist to serve patients and their physicians, it will undoubtedly receive enthusiastic cooperation from the medical profession and related groups," Dr. Wilbur said. "We know that the law and its legislative history stress the voluntary cooperative nature of the program and that interference with existing patterns is specifically prohibited . . .

"Unlike many other countries, our nation has reached its preeminence in many areas of activity because of this unique combination of multiple independent focal points of activity cooperating on a voluntary basis to achieve a commonly desired goal . . .

"If RMP maintains its current emphasis on

the working together of regional groups, it will fulfill its purpose of improving the quality, accessibility and availability of health care, physician and institutional performance, and consumer satisfaction.

"On the other hand, if RMP becomes an instrument for the establishment of national standards with the coercive compliance compelled by such standards, it will arouse nationwide resistance from physicians, institutions, and allied health professionals. What can be gained by cooperation and meaningful participation will surely be lost if the use of coercive power, which for the moment lies dormant in Public Law 89-239, becomes its dominant characteristic . . .

"RMP is in a strategic position to bring about changes acceptable both to physicians and their patients that will improve performance and patient satisfaction without undermining patterns of behavior that are traditional, and, more significant, considered by the medical profession essential to the preservation of high quality care."

* * *

The American Medical Association told Congress that weight reduction is a leading health area for quackery.

The AMA position on weight reduction, particularly as so-called diet pills are involved, was outlined by Drs. Theodore B. Van Itallie of New York, N. Y., a member of the Council on Foods and Nutrition, and Harry C. Shirkey of Birmingham, Ala., vice chairman of the Council on Drugs, in testimony before the Senate Antitrust and Monopoly Subcommittee.

The subcommittee was investigating reports that some osteopaths and physicians were making large incomes from assembly-line administration of multi-colored "diet" pills containing such drugs as barbiturates, thyroid extract, amphetamines, thiazine, diuretics, laxatives and various hormones.

Officials of Illinois and Oregon testified that such pills were involved in at least 20 deaths in their states.

"Perhaps in no other area of health and medical problems do we encounter as much food faddism and quackery," Dr. Van Itallie testified. "The obese are extremely gullible, forever willing to believe that someday a gadget, a diet, a pill, or a book will lead to the miracle of easy and painless reduction of weight. While most of the quackery originates with health hucksters who have no scientific background, training, or qualifications in the medical or nutritional fields, unfortunately a physician is occasionally involved.

"The American Medical Association has long utilized its various publications to bring to the profession and the public up-to-date information on the latest scientific advances in the area of obesity control. It frequently focuses attention upon those irregular practitioners and faddists who prey upon the unsuspecting public. As the national voice of Medicine, we believe that it is incumbent upon us to help protect the public from those practices which have the potential of adversely affecting the public health . . .

"A physician who assumes the responsibility for treating obesity takes on a difficult role. Few other medical disorders require the same disciplined and prolonged cooperation of the patient in their treatment. Even under the best of circumstances, the results of treatment become apparent slowly. The inherent handicaps may strain the busy physician's patience and tempt him to resort to unsound methods of treatment. He must have a clear understanding of the physiological and psychological problems of obesity in order to treat it wisely."

Dr. Shirkey broke down weight drugs into seven general classifications: (1) cardiac glycosides; (2) hormones, chiefly thyroid; (3) diuretics; (4) anorexiants (appetite suppressants); (5) laxatives; (6) sedatives; and (7) anti-spasmodics. Of them he said:

Cardiac glycosides: "Their use for obesity is reprehensible and may well have attributed to the few reported deaths of patients receiving such treatment."

Hormones—Thyroid: "There are at least

three irrationalities . . . in this hormonal approach to the treatment of obesity."

Diuretics: "There is no rational basis for the use of diuretic drugs in the treatment of simple obesity."

Anorexiants: "Amphetamines are useful as a crutch to help the patient become accustomed to a rigorous reducing diet. But long-term administration is not justified because they tend to become less effective and, in addition, can lead utimately to habituation."

Laxatives: "There is little rational basis for the use of laxatives in the treatment of obesity."

* * *

President Johnson said the administration would take additional steps to abate the increases in health care costs and to increase the numbers of health personnel.

In his economic message to Congress, he said:

"The supply of qualified health personnel has lagged behind the expanding demand. I will shortly propose new measures to increase this supply.

"Last year, medical care prices rose 7 per cent, more than twice as fast as other prices. I shall propose new measures to slow down the spiraling cost of health care."

In his State of the Union message, the President included in a list of "absolutely intolerable" conditions which he said had existed for many years: "Hospital and medical costs are high, and they are rising." He did not amplify the brief statements in either of these two messages, leaving the details for a later health message to Congress.

Chairman Abraham A. Ribicoff (D., Conn.) said the Senate Government Operations Committee would conduct a two-year investigation into the rise in hospital and other health care costs. He said the subcommittee's study also would be concerned with the numbers of physicians and other health personnel.

Mr. Johnson said he also would propose a child health program and stricter penalties for those who traffic in LSD and other dangerous drugs. The child health program would provide poor families over the next five years with health service from prenatal care of the mother through the child's first year.

The budget for the Department of Health, Education and Welfare allotted $66 million for medical education in fiscal 1969, for the year beginning next July 1, an increase of more than $16 million. Federal aid for allied health training was increased from $17.2 million to $19 million.

Medicare expenditures for fiscal 1969 were estimated at $6.3 billion, compared with $5.7 billion for the current fiscal year.

Family planning programs of the federal government would be greatly expanded. The goal is to provide birth control information to one million women by quadrupling the size of the family planning services budget from $6 million to $24 million.



Each Cough Calmer™ contains the same active ingredients as a half-teaspoonful of Robitussin-DM®. Glyceryl guaiacolate, 50 mg., Dextromethorphan hydrobromide, 7.5 mg. A. H. Robins Company, Richmond, Virginia 23220
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New, Long-term Psychiatric Facility

The new forty bed Parkwood Hospital specializes in long-term treatment of the mentally ill. Under the direction of a Medical Director, the hospital facilities are available to over thirty psychiatrists who are on its staff. Parkwood provides a full complement of exceptional facilities including X-ray, laboratory, pharmacy, occupational and music therapy, patient beauty parlor and an outdoor recreational area. ☐ Special efforts were made to combine maximum patient comfort with a warm, secure, residential atmosphere readily conducive to psychotherapy. ☐ We will be pleased to provide further information upon request.

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PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

General Practice—

Age 41; University of Illinois College of Medicine, 1954; seeking group practice; available July, 1968. LW-248

Age 38; University of Oklahoma, 1955; seeking associate, institutional or industrial practice; in town of 10,000 plus population; interest in surgery. LW-249

Age 28; University of Tennessee, 1965; available November, 1968. LW-250

Age 26; University of Tennessee, 1965; Available mid 1968; interest in pediatrics. LW-251

Age 28; Medical College of Alabama 1966; seeking practice in town of less than 14,000 population to fulfill scholarship requirements. Available 1968. LW-253

Age 34; University of Tennessee 1958; seeking solo, group, industrial, or associate practice. Available immediately. LW-254

Age 28; Baylor University College of Medicine 1965; seeking group, associate, industrial, institutional or aviation medicine practice. Available immediately. LW-255

Age 44; Medical College of Alabama, 1967, seeking associate practice in town of 12,000 plus population in central or south Alabama. LW-256

Internal Medicine—

Age 34; Hahnemann Medical College 1959; Board eligible, National Board; seeking solo, group, or associate practice. Available immediately. LW-257

Age 32; Albany Medical College, 1962; Board eligible; National Board; seeking solo, group, or associate practice. Available July 1968. LW-258

Age 29; State Univ. of New York at Buffalo, 1963; seeking group or institutional practice. Available July 1968. LW-259

Age 36; Georgetown Univ., 1956; Board eligible, seeking group, associate or institutional practice. LW-260

Age 34; University of Tennessee, 1958; American Board Certified, seeking group, industrial, or institutional practice. Available Spring 1968. LW-261

Obstetrics—Gynecology—

Age 32; Tulane University 1961; seeking group or associate practice. LW-262

Age 34; West Virginia Univ., 1963; Board eligible, seeking group or associate practice, available July, 1968. LW-263

Age 32; Univ. of Illinois 1964; National Board; seeking associate practice. Available July 1968. LW-264

Age 29; University of Tennessee 1961; Board eligible; seeking assistant or associate practice in north or central Alabama in town of 30,000 plus population. Available July 1968. LW-265

Age 35; University of Miami, 1960; Board eligible; seeking group or associate practice; available September 1968. LW-266

Pediatrics—

Age 30; Medical College of Alabama, 1962; Board eligible; seeking associate or assistant practice. Available February 1968. LW-267

Age 31; Vanderbilt University 1963; Board eligible; seeking group practice. Available August 1968. LW-268

Age 28; University of Texas, Southwestern, 1963; Board eligible; seeking group or associate practice. Available September 1968. LW-269

Age 36; Medical College of Alabama 1957; Board eligible; seeking group or associate practice. Available immediately. LW-270

Student Health—

Age 41; Med. Col. of South Carolina, 1955; seeking institutional practice. Available September 1968. LW-274

Age 39; University of Toronto, 1959; seeking student health service. LW-275

Age 54; Tufts Medical School, 1940; seeking industrial or institutional practice. LW-276

Surgery—

Age 31; St. Louis University 1963; Board eligible; seeking solo or associate practice. Interested in General Surgery with some General Practice. Available July 1968. LW-271

Age 33; Indiana University 1959; Board eligible; seeking group or associate practice. LW-272

Age 31; Medical College of Alabama 1961; Board eligible; National Board; seeking associate practice in town of 20,000-80,000 population. Available immediately. LW-273

Physicians Wanted

General Practitioners—

Opportunity in rapidly expanding community of 10,000-12,000 population adjacent to metropolitan center in north Alabama. Office space free for six months and equipment available. Staff privileges at nearby hospitals. PW-159

For town of 3,600 population in trade area of 5,000-7,000 within 100 miles of two large cities and the Gulf Coast. 50-bed hospital located in the town. Office space available. Agricultural and expanding industrial area. Several churches and two schools. Recreational activities in the town as well as nearby—golf course, hunting and fishing. PW-160

For town of approximately 1,000 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-161

Opportunity for one or more G. P.'s in city of approximately 8,000 population located in Northeast Alabama. Fully equipped clinic available. PW-162

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-163

For town of approximately 1,000 population in population center of 10,000 located in Southwest Alabama within 90 miles of the Gulf coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-164

For town with 1,000 population in trade area of 5,000 Southeast Alabama. Nearest large city with population of 50,000 is 55 miles. New clinic available rent free. No physicians in the town. Hospitals in surrounding town within 30 miles. Several churches and schools. PW-165

Opportunity in town of 1,500 population combined with adjoining town of 1,200 in population center of 14,500, located in central Alabama, approximately halfway between Birmingham and Montgomery. Clinic available rent free. Hill-Burton hospital-nursing home is located within a distance of 12 miles. Expanding industrial and agricultural area. Recreational advantages for water sports nearby. Churches and schools. A state college is located nearby. PW-166

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. One physician died recently. Hospital and nursing home in the city. PW-167

For town of 1,000 plus population in west-central Alabama in trade area of 20,000. Clinic available. Nearest city of approximately 70,000 population is located a distance of 17 miles. Farming, cattle, timber, and manufacturing plants are principal resources of the area. Churches, schools, and recreational advantages. PW-168

For solo practice in town of approximately 17,000 population located in east central Alabama. 48-bed general hospital. Arrangements available for office space. Excellent recreational advantages which include hunting, fishing and water sports. City owned airport. Numerous civic clubs. Excellent schools and churches. Expanding industrial and agricultural area. PW-169

Physician needed to associate with a large industrial concern in a northern Alabama metropolitan area of over 100,000. Four physicians on staff. Starting salary $16,000-$18,000 depending on qualifications. Excellent working conditions and fringe benefits. Good advancement opportunities. PW-170

Opportunity for one or more doctors in rapidly expanding eastern suburb of Birmingham. Attractive brick building consisting of 10 rooms and adjacent parking facilities. PW-171

Student Health—

New 75-bed facility to be occupied in late 1968. Present staff of seven full-time physicians. Seeking two (one as a replacement) for fall 1968. Salary negotiable. Appointments are full time with regular University benefits. PW-172

Full time salaried position of assistant director on staff of four. 65-bed well equipped infirmary with adequate office space. Excellent laboratory and X-ray facilities. Liberal fringe benefits. PW-173

Special Openings

Physician interested in Internal Medicine and Chest Diseases to provide general medical services in 184 bed Tuberculosis Hospital in North Alabama. References and experience data required in advance. U. S. citizens and fully licensed physicians given first choice. Others will be considered upon request. Salary open. PW-174

Medical Superintendent of 225 bed tuberculosis sanatorium with a building program in Birmingham. Salary and job description negotiable. Must be able to obtain Alabama license. PW-175

Specialist in the following fields: Internal Medicine, Pediatrics, Obstetrics-Gynecology and General Practitioners. 58 bed fully accredited general hospital with 91 bed addition to be completed in July 1968. Modern new office space available. PW-176



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THE JOURNAL

of

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Published Under the Auspices of the Board of Censors

Volume 37 March, 1968 No. 9

Two Cases of Rare Causes of Respiratory Distress in the Newborn: 1. Congenital Pulmonary Lymphangiectasis. 2. Wilson-Mikity Syndrome

James A. Meadows, Jr., M. D.

Birmingham, Alabama

Dr. Mary Ellen Avery,[1] in her recent publication on "The Lung and Its Disorders in the Newborn Infant," lists many causes for respiratory distress in the newborn. Her comments on the extreme rarity of congenital pulmonary lymphangiectasis and the Wilson-Mikity syndrome have stimulated the author to report one case each of these diseases seen at The Children's Hospital of Birmingham, Alabama.

Congenital Pulmonary Lymphangiectasis

CASE 1: Wm. M. an 8-week-old white male was admitted to The Children's Hospital on 11-10-64 with a chief complaint of increased respiratory difficulty. Difficult breathing was noticed a few days after birth but there was no cyanosis. The child required oxygen therapy prior to his initial discharge. He was a full-term infant with a birth weight of eight lbs. There was a three-year-old sister with congenital heart disease of a noncyanotic type. One week prior to ad-



Figure 1. COMMENT: X-ray examination of the chest revealed a very fine lined infiltrate throughout both lung fields. There is bilateral emphysema. The heart and aortic shadows appear to be within normal limits.



Figure 2. COMMENT: Lateral view of the chest showed even more clearly the very fine linear whirls in the peripheral portion of the lung which appear to typify this disease. The increased density in the hilar regions is apparently due to the superimposition of the enlarged lymphatics.

mission to The Children's Hospital, the patient was admitted elsewhere with a diagnosis of pneumonia. He was given chloramphenicol and penicillin with no improvement.

Physical examination revealed a malnourished child of eight lbs., eight oz. with a respiratory rate of 60/min., and a heart rate of 180/min. There was sinus rhythm with no murmurs. The fingernails and toenails revealed slight cyanosis. The liver was down two fingerbreadths below the costal margin. The lung fields were clear to auscultation. The clinical impression was: "Chronic pneumonia with possible cardiac failure." X-ray diagnosis: "Congenital cystic lymphangiectasis."

The patient was placed in a croupette and oxygen kept at 10 liters/min. Respiratory rate remained at 40-60/min. during the patient's hospitalization and the heart rate at 120-140/min.

All studies, including a bone marrow, were negative. On 11-29-64, the child suddenly aspirated and stopped breathing during the course of feeding. All emergency measures were taken, including cardiac massage but the child expired.

Autopsy Findings

An autopsy was obtained and the significant findings were as follows: *HEART:* The heart weighed 35 grams. The right ventricle was massively hypertrophied, measuring approximately two and one-half times the thickness of the left. The valves of the heart showed no abnormality. The foramen ovale was patent. *THORACIC CAVITY AND MEDIASTINUM:* The left lung was firm and tended to retain its place in the pleural space. The right lung showed similar findings. There was some hemorrhage in the soft tissues supporting the base of the heart which was thought to be due to cardiac massage. *LUNGS:* The right lung weighed 85 grams. The left lung weighed 70 grams. Both were nodular and dusky grey to brownish red in color. There were tiny pinhead to 2 mm. size bubbly areas of what appeared to be subpleural emphysema.

MICROSCOPIC FINDINGS: The lungs showed cystic dilatation of the lymphatic spaces beneath the pleura (Fig. No. 3) and in the fibrous septa (Fig. No. 4). These spaces were large and seemed to compress the adjacent parenchyma. There was thickening of the alveolar septa and the alveolar spaces were filled with macrophages and lymphocytes.

PATHOLOGICAL IMPRESSION: Congenital pulmonary lymphangiectasis.

Comment

Congenital pulmonary lymphangiectasis is an extremely rare disease. The child is us-

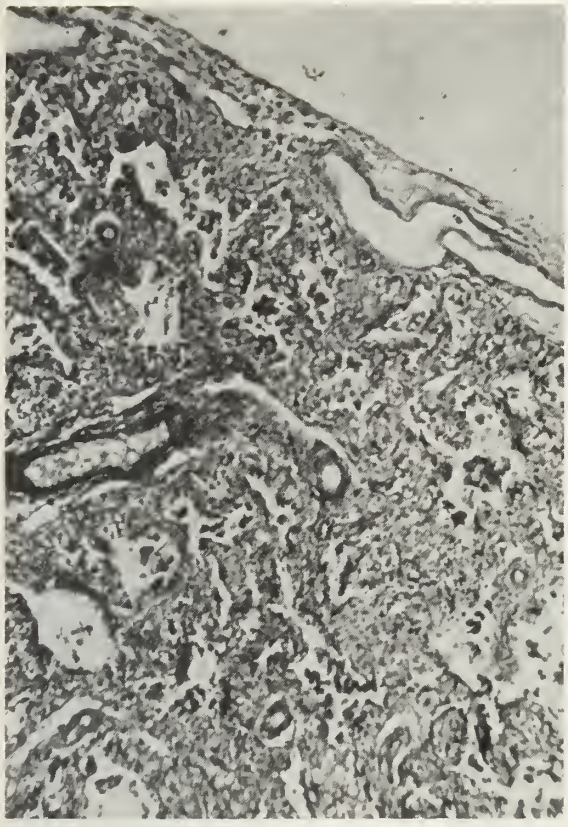


Figure 3. COMMENT: Elastic tissue stain x 100. Section of the lung showing markedly dilated subpleural lymphatic spaces.—G. F. Scofield, M. D., Pathologist.

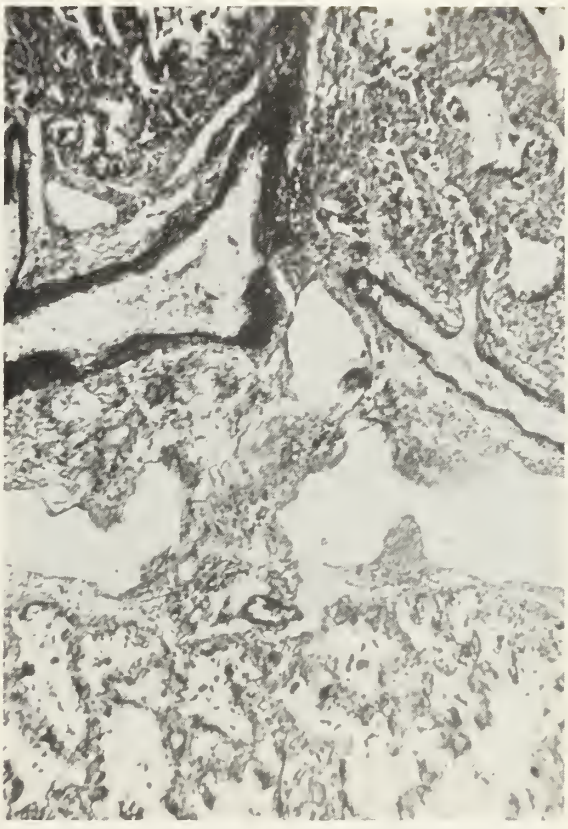


Figure 4. COMMENT: Elastic tissue stain x 100. Section of lung showing cystically dilated lymphatic spaces in intralobular tissue. G. F. Scofield, M. D., Pathologist.

ually the product of a normal gestation and normal delivery. Cyanosis occurs rather rapidly and death follows in a few hours. The longest survival among Laurences'[5] 13 cases was 8 days. Our patient survived for 2½ months and there was one reported by Javette, *et al*[4] which was alive at 9 months.

Laurence[5] suggests that the etiology of the disease is a disturbance in the development of the lymphatics in that they maintain the same relationship with other tissues of the lung as is present at 16 weeks gestation. Grossly the lung appears to be bulky and lobulated due to the dilatation of the lymphatics. On cut surface cystic areas can be seen. In our cases they were described as "tiny pinhead to 2 mm. size bubbly areas of what appear to be subpleural emphysema." Serous fluid will ooze from the cut surface.

Radiographically the entire lung is involved. The central portion is dense with only a suggestion of linear component. Peripherally the lung shows very fine linear whirls. These were particularly apparent in this case on the lateral view. Bilateral pulmonary emphysema was present. The heart measured within normal limits but this could be due to compression by the emphysema.

Wilson-Mikity Syndrome or Congenital Pulmonary Dysmaturity

CASE II: T. K. a two-and-one-half-day old white male was admitted to The Children's Hospital of Birmingham, Alabama, on 6-15-62 with retraction and cyanosis which had been present since birth. The patient had shown some improvement on oxygen therapy. He was born prematurely (seven months)

with a birth weight of four lbs., four oz. The family history was negative.

Examination: Temperature, 98° F.; pulse, 94/min.

Physical examination revealed the child to be a premature infant in moderate respiratory distress and showing signs of cyanosis. Other positive findings were limited to the chest. There was retraction and tachypnea with rales bilaterally; particularly heard posteriorly. The heart was negative.

Admitting diagnosis: (1) Hyaline membrane disease and (2) Prematurity.

X-ray examination on 7-9-62.

LABORATORY FINDINGS: Urine, normal. WBC, 12,500 with stabs 4; polys, 56; lymphs, 32; monocytes, 8. Hemoglobin 19.5; hematocrit 57 vol., per cent. EKG was diagnostic for Cor pulmonale.

TREATMENT: The patient was placed in an isolette at time of admission (6-15-62) with oxygen at 8 liters/min. He was given aqueous penicillin, 200,000 units, streptomycin, 40 milligrams q 12 hours. By 6-18-62, the oxygen could be decreased to 3 liters/min.; however, by 6-25-62 the patient was thought to have minimal cardiac distress which was treated by digoxin.

The patient continued to lose from a birth weight of four pounds, four ounces to three pounds, five ounces by 6-29-62. The weight had increased to five pounds, 5.5 ounces by 8-31-62. He was discharged from the hospital on 8-31-62, much improved.

The patient was next seen on 10-2-62 at



Figure 5. COMMENT: X-ray examination done on 7-9-62 revealed a heavy reticular pattern throughout both lung fields with multiple rounded lucent areas and bilateral pulmonary emphysema.



Figure 6. COMMENT: Film on 10-2-62 was interpreted as "bilateral bronchial pneumonia and bilateral pulmonary emphysema." Dr. H. Grossman,[3] et al. Classification of "intermediate stage."

which time he showed clinical evidence of respiratory embarrassment but this was less marked than at the time of initial admission.

The patient was re-admitted to the hospital on 6-24-63 with the chief complaints of nasopharyngitis, cough and fever. X-ray examination of the chest was done.

The patient had one episode of bronchial pneumonia on November 12, 1964 and made an uneventful recovery.



Figure 7. COMMENT: (Dated 6-24-63.) Radiographic examination showed partial atelectasis of the right upper lobe with consolidation due to pneumonia. Bilateral pulmonary emphysema. Minimal generalized cardiac enlargement.

Our last X-ray examination of record was done on 2-10-65, (Fig. No. 8) at which time the patient was X-rayed because of upper respiratory infection of five days' duration

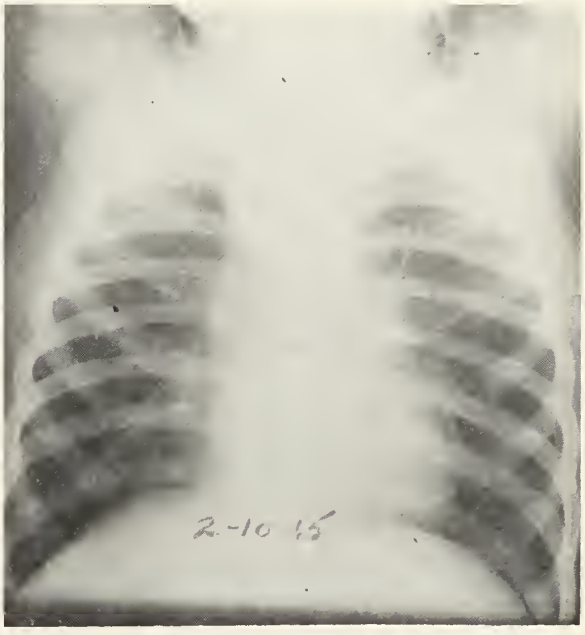


Figure 8. 2-10-65. Minimal pulmonary emphysema. The chest was otherwise negative.

and moderate respiratory distress. He had had generalized convulsions three days prior to admission. The diagnoses at that time were: (1) Bronchial Pneumonia and (2) Febrile Convulsions. The child is still living at the time of this writing (November 1967), but is a respiratory invalid to a mild degree.

Comment

Congenital pulmonary dysmaturity, or Wilson-Mikity syndrome, is another rare cause of respiratory distress in the newborn of unknown etiology. Dr. Paul R. Syer, *et al*[6] recently reported 14 cases from the literature and added eight of his own. They listed the following six common clinical findings in these patients.

1. Prematurity—Usually less than 1500

grams and less than 30 weeks of gestation.

2. Onset at or shortly after birth.

3. Dyspnea, tachypnea, rales and cough.

4. Cyanosis, persistent or episodic.

5. Chronic course to pulmonary insufficiency and right heart failure.

6. Failure to thrive—complicating infections and aspiration.

Retardation is thought to be due to cardiorespiratory difficulty rather than prematurity. Supportive oxygen therapy is necessary from 1½ months to five months. The oldest fatal case was eight months. All patients show EKG changes of right heart overload. Six of the above cases required digitalis. One was carried on digoxin from 3½ months to 30 months of age to survival. There were repeated infections in 7 of their 8 cases.

PATHOLOGICAL FINDINGS, listed by Swyer, *et al*[6], were as follows:

1. Normal areas, cystic emphysema with rupture of alveolar walls and focal atelectasis.

2. Fewer capillaries in many alveolar walls.

3. Thickened septa with numerous cells and abundant extracellular elements.

4. Septa incompletely developed.

5. Increased fibroelastic tissue with numerous smooth muscle cells.

Dr. Herman Grossman, *et al*[3], in discussing the radiographic findings, described three states of the disease which correspond to those in the case reported here.

1. Acute state—reticulonodular or reticular pattern with small round lucent foci, giving a bubbly appearance and hyperaeration. (Fig. No. 5).

2. Intermediate state, from weeks to months. Coarse streaky changes extending from the hilar regions, mostly into the upper lobes. (Fig. No. 6) Hyperaeration was more marked.

3. As in Fig. No. 8—usually clears at 4-11 months.

Summary

Two rare diseases are presented, each of which causes severe respiratory distress in the newborn. Each has a typical radiographic appearance. Congenital pulmonary lymphangiectasis occurs in the mature newborn and is apparently due to the lymphatics maintaining the same relationship to other lung tissues as is present at sixteen weeks' gestation. The prognosis is grave. Congenital pulmonary dysmaturity, or Wilson-Mikity syndrome, is of unknown etiology and occurs in prematures. Most of these patients survive but as pulmonary cripples.

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Tumors Of The Heart: A Review

By

James R. Shamblin, M. D.

Tuscaloosa, Alabama

Tumors of the heart, although rare, have taken on added interest in the past few years, due to the advent of extracorporeal circulation affording a means for surgical extirpation of these lesions.

Tumors of the heart were studied as early as the 17th century by Malpighi and others. They are divided into two groups—primary and secondary. The primary tumors are benign or malignant. Myxomas comprise 50 per cent or more of the benign type with angiomas, rhabdomyomas, leiomyomas, fibromas, hematomas, and lipomas making up the remainder. Sarcomas are by far the most common primary malignant cardiac tumor.[1]

Metastatic tumors spread to the heart by direct extension or transport through the blood stream or lymphatics. In one study four per cent of patients dying of cancer had cardiac metastases.[2]

Since myxomas and sarcomas comprise the majority of cardiac tumors, they will be discussed in some detail.

Myxomas are most commonly found in patients 30-60 years of age, with the sex ratio being three females to 10 males. Seventy-five per cent are found in the left atrium where they are usually attached to the interventricular septum along the edges of the foramen ovale. They vary in size up to 10 centimeters, although most surgical reports state that they are "golf-ball size." They are sessile or pedunculated, polypoid or villous, and vary in consistency from soft to firm. The color ranges from white to brown, commonly with areas of hemorrhage or thrombosis on the surface. Microscopically they are composed of loose connective tissue with varying amounts of collagen and elastic tissue and varying degrees of vascularity. The cells range from small fibroblasts to giant multinucleate cells. Mitoses are rare. Microphages with hemosiderin, lymphocytes and plasma cells are common.[1]

There has been disagreement as to the true nature of these tumors. Some authorities in the past have thought that they were organized thrombi, and in fact, the pathologic differentiation may at times be difficult. The arguments listed in favor of the neoplastic nature of these tumors are as follows: 1. most are larger than thrombi and far less cellular, 2. they do not retract like thrombi, 3. they usually occur in hearts free of other disease, 4. 75 per cent are found in the left atrium, while thrombi are found equally between the atria and ventricles, 5. most in the left atrium originate at the rim of the fossa ovalis, whereas left atrial thrombi are most common in the appendage, 6. there are no convincing intermediate stages between myxoma and thrombus, 7. myxomas have no evidence of stratification.[3]

Prichard believes that the tumors arise either from remnants of myxoid tissue of the embryonic endocardium or that they arise from other structures and become myxoid due to mechanical stresses.[3]

Myxomas are most often confused clinical-

Dr. Shamblin is on the General Surgery Staff of Druid City Hospital, Tuscaloosa, Alabama.

ly with rheumatic atrioventricular valve disease. Seldom have myxomas been diagnosed preoperatively; most are discovered when a patient undergoes closed mitral commissurotomy for presumed mitral stenosis.

The three main physiologic derangements caused by these tumors are cavitary obliteration, valve obstruction, and arterial embolism.[4] The extent of these derangements is determined by the size of the tumor, its relationship to portals of atrial inflow and outflow, the length of the pedicle and resultant mobility of the tumor, and its ability to form thrombi and shed emboli.

Cavitary obliteration causes a myriad of symptoms, among which are dyspnea, cough, retrosternal pain, weakness, palpitation, arrhythmia, hemoptysis, cardiomegaly, and frank heart failure. Valve obstruction may manifest itself as intermittent syncope, paroxysmal dyspnea, changing murmur, chest pain, and arrhythmias. Embolization may occur to any of the major organ systems or to the extremities and is a special hazard of the closed operative approach to these tumors.[4]

Scannell cites several factors that should suggest an intracavitary tumor: 1. the absence of a history compatible with rheumatic fever, 2. changes in symptoms and murmurs with changes in position of the patient, 3. syncope, 4. rapid progression of symptoms, and 5. marked failure of response to medical therapy. Ellis feels that these patients fail to show the orderly progression through the various phases of disability found in patients with rheumatic valvular disease and that their disease follows a much shorter duration with periods of relatively good health interrupted by intermittent crises. Scannell warns that tumor should be suspected in patients with peripheral emboli who have normal cardiac rhythm. One reported case had the diagnosis of intracardiac tumor made by pathologic examination of a removed peripheral embolus.[5]

Other aids in diagnosis are angiocardiography and cardiac catheterization. Hurst and Cooper list their indications for angiocardiography as follows: 1. an unusual picture of constrictive pericarditis, 2. a symptom complex of tricuspid stenosis without aortic or mitral valvular disease, 3. unexplained superior vena cava syndrome, 4. an unusual or irregular cardiac contour, 5. when certain shadows adjacent to the heart cannot be properly delineated, 6. repeated peripheral emboli without apparent cause, 7. and when the signs and symptoms of mitral stenosis are atypical, the left atrium has an irregular outline or there is evidence of a ball-valve blockade. Angiocardiography reveals only a filling defect, but not necessarily the nature of the defect.[2]

Three methods of surgical extirpation have been recommended for these tumors. They are closed technique, hypothermia, and extracorporeal circulation. Goldberg in 1951 was the first to use closed technique, but his patient died. Through 1958, 15 cases had been reported using this method, two cases survived, one of whom had only partial excision.[6] By this technique various ways of delivering the entire tumor or parts of it through an opening in the atrium have been sought. Its chief disadvantage is the danger of embolization. It is usually attempted when a tumor is found in a patient who was to have closed mitral commissurotomy for supposed rheumatic valve disease.

Hypothermia was first used by Bigelow in 1955 and his patient survived, as have five of six reported through 1958.[6] This method allows a bloodless field for direct excision of the tumor, but its main drawback is the short time allowed for completion of the procedure, plus the hazard of external cardiac cooling.

In 1954, Crawford successfully removed an atrial myxoma using extracorporeal circulation. Eight of nine cases reported through 1958 have survived operation using this method.[6] Most authorities now recommend this as the procedure of choice if the diagnosis is made pre-operatively. If the tumor is dis-

covered at the time of commissurotomy, it would appear to be wiser to terminate the procedure and re-operate at a later date using cardiac by-pass.

In 1951, Prichard was able to collect 112 cases of primary sarcoma of the heart with the diagnosis having been made before autopsy in only five cases. These tumors may be located anywhere in the heart, although there is a slight predilection for the right side, especially the atrium. The most common types are fibrosarcoma, fibromyxosarcoma, leiomyosarcoma, liposarcoma, lymphosarcoma, reticulum cell sarcoma, rhabdomyosarcoma, and angiosarcoma. They are usually intramural, replacing the entire thickness of the heart wall and presenting on either or both surfaces. The pericardium is frequently invaded and hemopericardium is common. Distal metastases are present in 30 per cent of the cases and most commonly involve the lungs, thoracic lymph nodes, liver, kidneys, adrenals, and pancreas.[3]

Conduction disturbances are common and the patients may experience relentless cardiac failure. Sudden death has occurred. The electrocardiographic findings are variable. Chest rays can show a rapid change in cardiac contour.[7]

The treatment of choice for these tumors is surgical. However, most of them are inoperable when first seen, so they are treated with radiation and/or drugs with remarkable palliation in some cases. Rarely a surgical cure is attained when the lesion is small and accessible.

Metastatic lesions to the heart are found 20-40 times as often as primary cardiac tumors. In several large autopsy series of patients dying with cancer, approximately four per cent were found to have cardiac metastases, with a majority of the lesions being on the right side. They reach the heart by embolization, lymphatic spread, and direct extension. The most common primary sites are cancer of the breast, lymphomas, melanomas, and bronchogenic cancer in that order. Prichard lists several reasons for the low incidence of cardiac metastases: 1. the strong kneading action of the heart, 2. the metabolic peculiarities of striated muscle, 3. rapid blood flow, and 4. the restricted lymphatic connections of the heart.[3]

Grossly the tumors consist of single or multiple nodules which microscopically resemble the primary. They are found in the walls of the heart, but rarely on the valves.

Most metastases usually produce no cardiac symptoms as such. In fact, of 500 cases reported in 1951, only 20 were diagnosed before death of the patient.[3] Cardiac metastases should be suspected in patients with widespread metabolic disease who have unexplained conduction defects or congestive heart failure. The incidence of known cardiac metastases will increase because of increased awareness of its occurrence and because people are living longer now with metastatic disease than they did in the past. There is no definitive treatment for this condition.

In summary, tumors of the heart can be primary or metastatic, and benign or malignant. The symptoms that are produced can be quite bizarre. Benign, primary tumors of the heart can be surgically cured using extracorporeal circulation.

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Ashes To Ashes

Armstead B. Hudnell, M. D.

Winston-Salem, N. C. 27103

The Report of the Advisory Committee to the Surgeon General on Smoking and Health[1], commonly referred to as the Surgeon General's Report, is a book which everybody has read about but almost no one has actually read.

This is most unfortunate because when the Report is subjected to closer scrutiny, it becomes apparent that most of the current efforts aimed at resolving the smoking and health problem are seriously deficient in medical perspective.

In accumulating evidence that cigarette smoking is harmful to health, the scientists are simply proving what the public has always assumed. Certainly, any product with the popular nickname of "coffin nail" would strongly suggest that the general populace looked on such a product as unsafe. Also, for generations, it is the rare child who has not been warned by his parents and elders that smoking would stunt his growth.

So in the last analysis, the conclusion of the Advisory Committee that cigarette smoking is an important health hazard was not news. It only confirmed what the public had assumed all along.

However, what would still be news to most people, physicians and scientists included, was the Advisory Committee's conclusion that cigarette smoking is of important health benefit. In its summary on page 356 of the beneficial effects of smoking, the Committee concluded as follows:

"Medical perspective requires recognition of significant beneficial effects of smoking primarily in the area of mental health."

Surely, most health authorities would agree, the Surgeon General included, that mental health is precisely the very area where we are presently most in need of help. Furthermore, the Committee also concluded that smoking provides other important health benefits unrelated to mental health.

The Report on page 355 states that cigarette smoking has been proven by "a substantial body of fact and experience" to be an effective "anti-obesity" agent and to also be of significant value in the "maintenance of good intestinal tone and bowel habits."

In this regard, it is important to note that no controversy exists concerning the health hazards of obesity and the indiscriminate use of laxatives, both of which are common and unresolved health problems in this country.

Thus, the same Advisory Committee which concluded that cigarette smoking is an important health hazard, also concluded in the same Report that cigarette smoking is of important health benefit. Although everyone is well aware of the former conclusion, virtually no one is aware of the latter. Contributing to this is the fact that the former conclusion was incorporated into the Committee's highly publicized Judgment In Brief which was presented on page 33 as follows:

"Cigarette smoking is a health hazard of sufficient importance in the United States to warrant appropriate remedial action."

It seems to be a foregone conclusion among all concerned, physicians and scientists included, that the Committee intended for "appropriate remedial action" to be basically anti-cigarette in nature. Such a conclusion,

Born in Washington, North Carolina, Dr. Hudnell was graduated from Alexander City High School, Alexander City, Alabama, and received his B. S. degree from the University of Alabama and his M. D. degree from the Medical College of Alabama. This article was prepared especially for the Journal of the Medical Association of the State of Alabama.

however, is neither logical nor scientific because it totally disregards important qualifying statements made by the Committee in the paragraph *immediately preceding* their Judgment In Brief. This key paragraph reads as follows:

"The significant beneficial effects of smoking occur primarily in the area of mental health, and the habit originates in a search for contentment. Since no means of measuring the quantity of these benefits is apparent, the Committee finds no basis for a judgment which would weigh benefits against hazards of smoking as it may apply to the general population."

It is essential to remember that to merely prove something to be hazardous, even extremely so, is no basis on which to crusade for its abolishment. If this were true, should not the leading cause of fatal poisoning in young children be abolished? Yet, no one advocates the abolishment of aspirin. And what about automobiles?

Obviously an essential pre-requisite to any scientific attempt to abolish something should be a carefully studied and informed judgment that the hazards involved outweigh the benefits. And on this point, the Report could not have been more specific than the following: " . . . the Committee finds no basis for a judgment which would weigh benefits against hazards of smoking as it may apply to the general population."

This is really a key statement. Since it immediately precedes their Judgment In Brief, the Committee must surely have intended for it to qualify their call for "appropriate remedial action." Yet, the U. S. Public Health Service responded by intensifying its already aggressive campaign to abolish cigarettes.

Scientifically, a more appropriate form of "appropriate remedial action" would seem to be an aggressive campaign to develop and market less hazardous cigarettes which are capable of providing the flavor and benefits of present cigarettes so that they will be acceptable to most smokers.

It must be emphasized, however, that the safer cigarette approach and the present approach which attempts to educate and motivate the population to give up smoking and to discourage the young from beginning are incompatible with one another. The apparent failure of the scientific community to recognize this has needlessly complicated the smoking and health problem.

Surely, it is obvious that the promise of a consumer-acceptable, safer cigarette cannot help but to undermine seriously the efforts of those who seek the abolition of cigarette smoking. For this reason, anti-cigarette advocates have consistently tended to minimize both the importance and the possibility of developing less hazardous cigarettes. This is not a question of sincerity but of subconscious motivation.

As an example of this, the following is submitted in evidence: In a June 10, 1966, letter to Dr. Daniel Horn, Director of the National Clearinghouse for Smoking and Health of the U. S. Public Health Service, I made the following statement:

"As you well know . . ., the same Advisory Committee to the Surgeon General which concluded that the cigarette smoking was an important health hazard, also concluded in the same Report that cigarette smoking was of important health benefit . . . But you may not know about this . . . In Public Health Service publication No. 1103-E, a booklet dated March, 1965, and entitled, 'A Quick Reference Guide To The Report,' it seems that the Committee's conclusions favorable for smoking were omitted altogether!!!!"

In a letter, dated July 22, 1966, Dr. Horn made the following reply:

"On your discussion of the Public Health Service's pamphlet, 'A Quick Reference Guide to the Report.' Any summary of the health benefits of smoking in this small publication would necessarily be drawn from

page 355 of the Surgeon General's Report, a copy of which is attached. In my opinion, the omission of such a section does not compromise the Public Health Service's position in regard to the advantages of a safer cigarette, nor does it diminish the usefulness of the pamphlet."

Dr. Horn's reply suggests that the section in question was not summarized in the Report. This is not true. A summary is present, but it appears on page 356 and not page 355. Interestingly, Dr. Horn only attached a copy of page 355 to his letter. The next page would have been more relevant because the summary begins with the statement noted earlier concerning the need for medical perspective.

This is mentioned, not to castigate Dr. Horn, but to simply demonstrate the lack of medical perspective which is characteristic of the present anti-cigarette effort.

Meanwhile, the tobacco companies, which are equally deficient in medical perspective, still insist that cigarettes have yet to be proven hazardous to health. In other words, the companies still say there is no such thing as an unsafe cigarette, which is another way of saying that there is no such thing as a safer cigarette. Obviously, you must first have an unsafe cigarette before you can possibly have a safer one.

Consequently, the present position of the tobacco companies virtually precludes the marketing of new and truly safer cigarettes because to be consistent, the companies must consider such cigarettes as tending to make by implication a misleading health claim. After you clear away all the semantic ideations, one point stands out. Anti-cigarette advocates and the tobacco companies presently agree on one vital point, namely, there is no such thing as a safer cigarette. This matter must be resolved.

Also clear is the fact that an aggressive campaign to abolish cigarettes has been tried and it has failed. This was acknowledged by Secretary John Gardner this past spring in testimony before the House Appropriations Committee[2].

Although some doctors have quit smoking, the percentage continuing to smoke is still high and not greatly below that of the general adult population. When this is kept in mind, it hardly seems reasonable to expect to get the general public to stop smoking by an educational campaign.

A more effective form of public education would be one which primarily aimed at modifying the smoking habit rather than eliminating it altogether. An example of this approach is embodied in a bill introduced by Senator Warren G. Magnuson, D-Wash., which would require the mandatory disclosure of tar and nicotine content on all cigarette packages and advertising.[3]

This bill has much to commend it. Its only weakness is that it treats tar and nicotine as if they were equally important health hazards which is inconsistent with the following conclusion of the Advisory Committee as given on page 32:

". . . the chronic toxicity of nicotine in quantities absorbed from smoking and other methods of tobacco use is very low and probably does not represent an important health hazard."

Although some toxic components of the gaseous phase of tobacco smoke are likely to prove more hazardous than nicotine, the preponderance of evidence indicates that tar is primarily responsible for the health hazard of smoking. Furthermore, a standard method for the collective determination and reporting of toxic gas content has not yet been established.

Thus, the tar content represents the most reliable guide presently available for comparing the relative hazard of various cigarettes. For this reason, it would be both confusing and misleading to the public for the nicotine content to be given equal billing. Perhaps, a reasonable compromise on this point would be to stipulate that the tar content must always be given in larger print

than the nicotine content. This would be similar to the current requirement concerning the size differential in a drug's brand name and its generic name.

Whether amended or not, Senator Magnuson's bill should be supported by the medical profession because it would help considerably to create a more favorable climate for the development and marketing of new and truly safer cigarettes that people might be willing to buy and smoke.

Experience has shown the development of a low tar cigarette to be a relatively easy matter. However, what has not been easy or even possible is the development of a low tar cigarette that people would be willing to smoke. This is because the tar is primarily responsible for not only the hazard but the flavor as well. Obviously, it is of little importance to develop a less hazardous cigarette or even a completely safe one unless the smoking population will buy and smoke it.

The development of safer cigarettes can be approached from many different directions. My own particular approach involves a finger controllable, air filtration system which I have developed and refer to as "Digital Air Control."

In its simplest form, "Digital Air Control" consists of a single external air vent so located as to be easily covered as desired but will normally be left uncovered. When the vent is covered by the finger, the cigarette provides full flavor, however, when the vent is left open, air dilution of the tobacco smoke occurs. This works best in filter cigarettes because the resistance of the filter itself helps to prevent the unpleasant sensation of "sucking air."

It has been shown that a significant reduction in all components of tobacco smoke—tar, nicotine, and gases—can occur with a single air vent smaller than the size necessary for "sucking air" to be noticeable. This conclusion is based on the results of studies conducted by the Foster D. Snell, Inc. laboratory in New York City and the Research Division of the R. J. Reynolds Tobacco Company.

The ability of a single external air vent of various sizes to reduce the tar content is shown in Table One. These results have all been taken from the Foster D. Snell study with the exception of the results for the 1/32" vent which came from the study by Reynolds. This is the only specific data which Reynolds has made available, however, according to Mr. Edgar H. Harwood, assistant chief of tobacco product development, Reynolds' tests not only confirmed the results of the Snell study but also showed that, on a percentage basis, the reduction in gases was almost as great as the reduction in tar.

TABLE ONE

AIR VENT SIZE	TAR * (mg. in smoke of one cig.) VENT CLOSED	VENT OPEN	% REDUCTION
1/32"**	21.2	13.0	39
1/16"	15.6 (±0.35)	5.9 (±0.10)	62
3/32"	15.6 (±0.35)	1.4 (±0.30)	91
1/8"	15.6 (±0.35)	0.9 (±0.00)	94

* average based on 2 runs of 4 cigarettes each

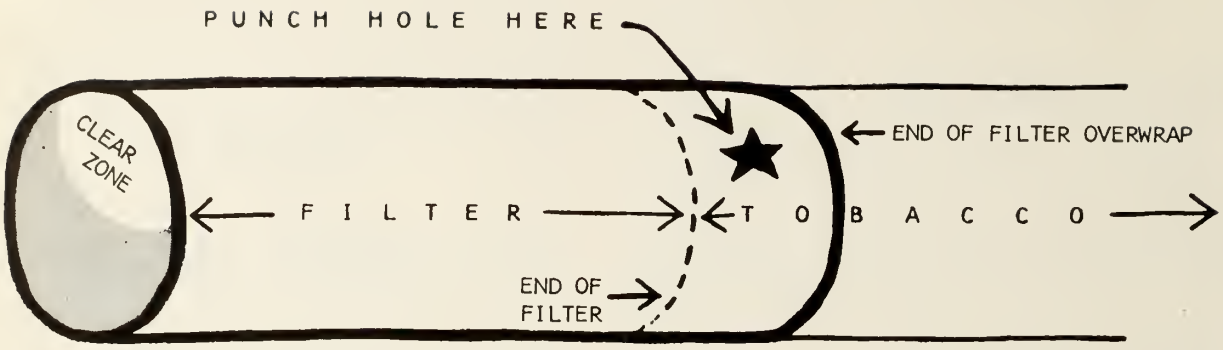
** smoked to 30mm. butt length; all others to 32mm.

± standard deviation from average

Most filters do not reduce the toxic gas content. Charcoal has a limited ability to do so which accounts for the various charcoal filters now in use. However, the most effective means presently available for reducing the toxic gas content of tobacco smoke is by the use of air dilution.

Preliminary studies indicate that most smokers desire and enjoy full tobacco flavor for only the first few puffs. After this, continued smoking tends to become reflex in nature and flavor is no longer an important consideration. Since the more one smokes, the more one tends to smoke reflexively, Digital Air Control is designed to help most, those who most need help, namely, heavy smokers.

A smoker can be expected to cover the vent with his finger for the first few puffs in



order to obtain full tobacco flavor. Even so, it must be remembered that the tar, nicotine, and gas content of a puff taken initially is relatively low but progressively increases as the butt length shortens. Thus, flavor can be enjoyed by the smoker for the first few puffs with a minimal sacrifice in safety.

The single air vent is so located and designed as to be rarely covered by the finger in the absence of a conscious desire to do so. Once reflex smoking begins, the finger simply slips off the vent and a marked reduction in tar, nicotine, and gas content occurs at the very time their concentration in the smoke would normally be highest.

Until such time as the tobacco industry awakens to its responsibility to the smoking public, the individual smoker must, of necessity, be content with a crude but effective way of making his present cigarettes safer. This can be done by inserting a sharp needle or similar object through the filter overwrap into the tobacco just in front of the filter. (See Illustration) Note that the filter overwrap extends beyond the end of the filter for a short distance. The cigarette paper does not work as well because it is too fragile and provides insufficient support for the finger. It is suggested that a hole approximately 1/16″ in size be made initially. However, whatever the initial size found to be satisfactory, an attempt should later be made to gradually enlarge it.

Although more sophisticated methods of effectively utilizing my finger controllable, air filtration system have been developed, these must be incorporated into the cigarette at the time of manufacture. Until such time as this is done, I would urge you to advise your smoking patients to take advantage of my concept by punching their own holes in their present cigarettes.

Meanwhile, the U. S. Public Health Service continues to pretend that cigarette smoking is not of important health benefit just as the tobacco companies continue to pretend that cigarette smoking is not an important health hazard. Surely, a serious health problem, which so deeply affects the lives of countless millions, deserves something better than a make-believe approach to its solution.

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2. Statement of the Secretary of Health, Education, and Welfare to Subcommittee on Departments of Labor and Health, Education, and Welfare and Related Agencies; Hearings before a Subcommittee of the Committee on Appropriations, House of Representatives, Ninetieth Congress for Departments of Labor and Health, Education and Welfare Appropriations for 1968, pages 67-71 (381 total pages), March 1967.

3. Magnuson, Warren G.: Introduction of Amendments to the Cigarette Labeling and Advertising Act—S1803; Congressional Record—Senate, Ninetieth Congress, First Session, Vol. 113, No. 77, pages S6974-76, May 17, 1967.



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Side Effects: The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

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(1) Bilbao, M. K.; Frische, L. H.; Rösch, J., and Dotter, C. T.: Hypotonic Duodenography, Scientific Exhibit, Radiological Society of North America, Chicago, Nov. 27–Dec. 2, 1966.

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Program

of the

107th ANNUAL SESSION

of the

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

PARLIAMENT HOUSE MOTOR HOTEL — BIRMINGHAM

APRIL 18, 19, 20, 1968

The 107th Annual Session of the Medical Association of the State of Alabama will convene at 9 a. m., on Thursday, April 18, 1968, in the Sussex-Cambridge Rooms on the mezzanine floor of the Parliament House Motor Hotel, Birmingham, Alabama.

The opening session will be called to order by E. Bryce Robinson, Jr., M. D., President of the Association. It will be followed immediately by the Orientation Program for new members with E. L. McCafferty, Jr., M. D., President-Elect, presiding. Theme of the Orientation Program is "The Physician Stands Not Alone" with four outstanding speakers describing the role of the physician and his responsibilities to society.

Three scientific sessions will be held, also in the Sussex-Cambridge Rooms, featuring outstanding speakers.

Registration

The registration desk for Counsellors, Delegates and members of the Association will be located in the lobby of the Parliament House Motor Hotel.

The desk will be open from 8:00 a. m. until 5:00 p. m., on Thursday and Friday, April 18 and 19, and from 7:30 a. m. until 10:30 a. m., on Saturday, April 20.

Counsellors and Delegates will be registered in advance and may claim their badges, a copy of the official program and any other material upon which they will be called to make decisions upon signing the official registration card.

Members and guests will be registered at the same place upon signing registration cards.

Exhibitors Registration

A registration desk for exhibitors will be located on the mezzanine floor of the Parliament House Motor Hotel adjacent to the exhibits area from 2:00 p. m. until 5:00 p. m., on Wednesday, April 17. Thereafter, exhibitors may register at the main registration desk.

Badges

No person will be admitted to any scientific, business, or social session of the Association, or to the exhibit area, unless he or she wears an official badge.

Speakers

Speakers will be called in the order in which they appear on the program. Should a speaker be absent when called, his paper

will be passed and called again upon conclusion of the program.

Hotel Reservations

The Central Office of the Medical Association of the State of Alabama has established a Housing Bureau for the convenience of Counsellors, Delegates and members.

Advance registration requests have been distributed in the January, February and March issues of The Journal of the Medical Association of the State of Alabama.

The headquarters hotel will be the Parliament House Motor Hotel. Priority for the limited number of rooms available have been assigned to Counsellors, Delegates, officers of the Association and guest speakers. When the supply of rooms is exhausted, applicants will be referred to the Guest House Motor Inn, the Sheraton Motor Inn-Colony, both within a few minutes driving distance of the Parliament House, and to the Tutwiler Hotel in downtown Birmingham.

Deadline for advance registration is April 10, 1968. After that date, reservations must be made directly with the hotel or motel.

Social Events

A full listing of social events of the 107th Annual Session will be published in the official program, available at the time of registration, with advance publicity in The Alabama M. D. several weeks prior to the Session. Scientific presentations of medical specialty groups will be scheduled either before or after the Annual Session inasmuch as the Constitution and Bylaws forbids this type of meeting during the three days allotted to the Annual Session. Social events for specialty groups and alumni organizations will be held on Thursday, April 18, 1968, at places and times to be announced later.

Carraway Methodist Hospital will be host at a barbecue for members of the Association and guests, to be held on Thursday, April 18, 1968.

The Scroll & Key Club reception and dinner-dance will be held at the Parliament House Motor Hotel on Friday evening, April 19, 1968. Consult official program for time and place.

Tickets for social events should be purchased in advance if possible. Otherwise, a limited number will be available at the registration desk.

Awards Luncheon

An innovation of the 107th Annual Session is an Awards Luncheon to be held in the Sussex-Cambridge-Winsor Rooms (Crown Room) on the mezzanine floor of the Parliament House Motor Hotel at 12:15 p. m., on Thursday, April 18, 1968. The luncheon will be sponsored by the Committee on Public Relations in honor of the winners of the 1968 awards, past presidents, and members of the Fifty Year Club. The following new members will be inducted into the Fifty Year Club:

James A. Becton, M. D., Birmingham

B. O. Robertson, Sr., M. D., Birmingham

John W. Simpson, M. D., Birmingham

Emmette C. Ray, M. D., Tavares, Fla.

Emmett B. Frazer, M. D., Mobile

Walton H. Anderson, M. D., Decatur

Admission to the luncheon will be by invitation.

Awards will be presented by C. A. Grote, Jr., M. D., Chairman of the Committee on Public Relations, to the following:

William Crawford Gorgas Award to the citizen of Alabama who is not actively engaged full time in the field of health and who has rendered outstanding service to the Honorable Lurleen Burns Wallace, Governor of Alabama.

William L. Sanders Award to the person, lay or professional, engaged full time in public health work for services above and beyond the call of duty, to Ira L. Myers, M. D., Health Officer, State of Alabama.

Douglas L. Cannon Medical Reporting Award to the reporter, editor or publisher, of an Alabama newspaper, or to a radio television personality who has shown excellence in factual reporting of medical news and for outstanding efforts in elevating medical news coverage to Mr. Ray Butts, Editorial Director, Television Station WSFA-TV, Montgomery.

The A. H. Robins Company Award for the physician who has rendered outstanding service to his community above and beyond his professional call of duty to William Campbell Hannon, M. D., of Mobile.

The Aesculapius Award, donated by the Medical Association of the State of Alabama in cooperation with Mead Johnson Laboratories to the author of the outstanding scientific exhibit shown at the 1968 Annual Session.

Board of Trustees

The Board of Trustees will meet at 9:00 a. m., on Wednesday, April 17, in Room 203 on the mezzanine floor of the Parliament House Motor Hotel, to sit as a reference committee in consideration of any and all matters of business to be presented at the 107th Annual Session. All Counsellors, Delegates and members of the Association are cordially invited to sit with the Board of Trustees and to present their views on matters under consideration.

Board of Censors

The Board of Censors will meet at 9:00 a. m., on Wednesday, April 19, in Room 202 of the Parliament House Motor Hotel to transact official business concerning the State Board of Medical Examiners and the State Committee on Public Health. Upon completion of discussions relating to the Board of Medical Examiners and the Committee on Public Health, the Board of Censors will convene to officially consider Association affairs, including matters referred by the Board of Trustees.

Other Events

Wednesday, April 17, 1968

Exhibitors Reception

The annual reception for representatives of exhibitors at the 107th Annual Session will be held from 4:00 p. m. to 5:00 p. m., on Wednesday, April 17, in the Sussex Room of the Parliament House Motor Hotel. Officers and members of the Board of Censors and Board of Trustees will be hosts at this reception.

Alabama Thoracic Society and Alabama Tuberculosis Association

The Alabama Thoracic Society and Alabama Tuberculosis Association will sponsor a reception and dinner meeting in the Cambridge-Winsor Rooms on Wednesday, April 17, beginning at 6:00 p. m. Principal speaker will be Daniel E. Jenkins, M. D., President of the National Tuberculosis Association. Dr. Jenkins will speak on the subject "Validity of the Pink Puffer-Blue Bloater Concept."

Alabama Society of Anesthesiologists

The Alabama Society of Anesthesiologists will sponsor a reception and dinner to be held in the Sussex Room of the Parliament House Motor Hotel, beginning at 6:30 p. m. Speaker will be Peter Bosomworth, M. D., Chief of the Department of Anesthesiology, University of Kentucky School of Medicine, Lexington, Ky. The speaker and social hour will be sponsored by Ayerst Laboratories.

Hosts Of The Association

Official hosts of the Association will be the Jefferson County Medical Society, Hiliary H. Henderson, Jr., M. D., President. A Host Committee will be assigned to provide transportation and escort for visiting dignitaries.

Alumni Meetings

Consult official program for time and place of Alumni meetings.

Officers Of The Association



President

E. Bryce Robinson, Jr. (1968) Fairfield

President-Elect



E. L. McCafferty, Jr. (1968) Mobile

Vice-Presidents

S. J. Campbell (1968) (NW Dist.) Birmingham

F. M. Phillippi, Jr. (1969) (SW Dist.) Brewton

J. E. Cameron (1970) (NE Dist.) Alexander City

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(Term: January 1, 1967-December 31, 1968)

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PROGRAM

Opening Session

Thursday, April 18, 1968

Parliament House
Sussex-Cambridge Rooms

E. Bryce Robinson, Jr., M. D.,
Fairfield, President, Presiding

9:00 A. M.



Call to Order

Invocation

Dr. Sterling J. Edwards, Jr., Minister, The South Highland Presbyterian Church, Birmingham, Alabama



9:05 A. M.

Welcome Address by Honorable George G. Seibels, Jr., Mayor



Welcome Address by President Jefferson County Medical Society, Hiliary H. Henderson, Jr., M. D.

Orientation

Sussex-Cambridge Rooms

THEME:
"THE PHYSICIAN STANDS NOT ALONE"

E. L. McCafferty, Jr., M. D.,
Mobile,
President-Elect, Presiding

9:15 A. M.



The Physician and His Organizations

John M. Chenault, M. D., Chairman, Board of Censors, Decatur

9:35 A. M.



The Physician and His Community

Mr. Earl W. Mallick, Vice President—South, United States Steel Corp., Fairfield

9:55 A. M.

The Physician and His Relationship With The Hospital and Its Trustees



Mr. Edwin C. Bramlett, President of Southeastern Hospital Association and Administrator of Mobile Infirmary, Mobile

10:20 A. M.

The Physician and The Law



Honorable MacDonald Gallion, Attorney General, State of Alabama, Montgomery

10:50 A. M.

The Physician and His Government



Mr. Arthur E. Hess, Deputy Commissioner of Social Security, Department of Health, Education and Welfare, Baltimore, Md.

11:30 A. M.

President's Message, E. Bryce Robinson, Jr., M. D., Fairfield

Thursday, April 18, 1968

Awards Luncheon

Sussex-Cambridge-Winsor Rooms

12:15 P. M. (Crown Room)

E. Bryce Robinson, Jr., M. D., President, Presiding



Invocation

Awards Presentation

C. A. Grote, Jr., M. D., Chairman of Committee on Public Relations



William Crawford Gorgas Award

Governor Lurleen B. Wallace

William Henry Sanders Award

Ira L. Myers, M. D.



Douglas Cannon News Reporter Award

Mr. Ray Butts



A. H. Robins Community Service Award

William C. Hannon, M. D.

The Aesculapius Award For Outstanding Scientific Exhibit —Winner To Be Announced.

Introduction of Past Presidents

J. O. Finney, M. D.
James G. Donald, M. D.
E. B. Glenn, M. D.
James G. Daves, M. D.
M. Vaun Adams, M. D.
John W. Simpson, M. D.
Hugh E. Gray, M. D.
William R. Carter, M. D.
Edgar G. Givhan, Jr., M. D.
John A. Martin, M. D.
Grady O. Segrest, M. D.
J. Orville Morgan, M. D.
B. W. McNease, M. D.
T. Brannon Hubbard, M. D.
Joseph M. Weldon, M. D.
Frank C. Wilson, M. D.
J. Paul Jones, M. D.
Jesse P. Chapman, M. D.
James R. Garber, M. D.
Samuel Kirkpatrick, M. D.
J. D. Heacock, M. D.

Presentation of Fifty Year Club Members

James A. Becton, M. D. Birmingham
B. O. Robertson, Sr., M. D. Birmingham
John W. Simpson, M. D. Birmingham
Emmette C. Ray, M. D. Tavares, Fla.
Emmett B. Frazer, M. D. Mobile
Walton H. Anderson, M. D. Decatur

Introduction of Fraternal Delegates

Introduction of Program Participants

Adjourn

Thursday, April 18, 1968

First Scientific Session

Sussex-Cambridge Rooms

Hiliary H. Henderson, Jr., M. D., Birmingham, President, Jefferson County Medical Society, Presiding

2:00-2:30 P. M.



The Physician and Sports

Jack C. Hughston, M. D., Columbus, Ga., Member of AMA Committee on Medical Aspects of Sports

2:30-3:05 P. M.

Cancer of The Thyroid: Not A Single Disease



Kenneth C. Sawyer, Sr., M. D., Denver, Colo., Associate Clinical Professor of Surgery, University of Colorado School of Medicine

3:05-3:20 P. M.

Break—View Exhibits

3:25-4:00 P. M.

The Overinterpretation of Electrocardiograms



Henry J. L. Marriott, M. D., St. Petersburg, Fla., Director of Clinical Research, The Rogers Heart Foundation

4:00-4:30 P. M.

Current Approaches to Treatment and Prophylaxis of Viral Diseases



Charles A. Alford, M. D., Birmingham, Meyer Research Professor Pediatrics, Medical College of Alabama

4:30-5:00 P. M.

The Value of Screening In The Detection of Early Obstructive Pulmonary Disease



Daniel E. Jenkins, M. D., Houston, Texas, Professor of Medicine, Baylor University School of Medicine

Friday, April 19, 1968

Second Scientific Session

Sussex-Cambridge Rooms

E. Bryce Robinson, Jr., M. D., Fairfield, President, Presiding

9:00-9:35 A. M.

Total Abdominal Hysterectomy Facilitated



S. Buford Word, M. D., Birmingham, Clinical Assistant Professor of Obstetrics and Gynecology, Medical College of Alabama

9:35-10:10 A. M.

Abnormal Voiding in Children



Edward V. Z. Scott, M. D., Birmingham, Clinical Assistant Professor of Surgery (Urology), Medical College of Alabama

10:10-10:45 A. M.

Distal Bulb Ulcers of The Duodenum



Malcolm C. Todd, M. D., F.A.C.S., Long Beach, Calif., Associate Clinical Professor of Surgery, University of California; President, California Medical Association

10:45-11:30 A. M.

Break—View Exhibits

11:00 A. M.

Jerome Cochran Lecture

Changing Patterns of Clinical Medicine



G. Gordon McHardy, M. D., New Orleans, La., Clinical Professor of Medicine at the Louisiana State University Medical School

11:30 A. M.

Subject to be Announced



Paul B. McCleave, L.L. D., Director, Department of Medicine and Religion, American Medical Association, Chicago, Ill.

11:45 A. M.

Caucus of Counsellors and Delegates

Friday, April 19, 1968

ALAPAC LUNCHEON

Sussex-Cambridge-Winsor Rooms (Crown Room)

12:15 P. M.



E. B. Glenn, Jr., M. D., Birmingham, Chairman, ALAPAC, Presiding

Invocation

Dotson M. Nelson, Jr., Th. D., D. D., Birmingham

Introduction of ALAPAC Board of Directors



Address—Honorable Albert P. Brewer, Lieutenant Governor

Adjourn

Friday, April 19, 1968

Third Scientific Session

Sussex-Cambridge Rooms

E. Bryce Robinson, Jr., M. D., Fairfield, President, Presiding

2:00-2:35 P. M.



Medicine and Religion

Milford O. Rouse, M. D., Dallas, Texas, President of American Medical Association

2:35-3:10 P. M.

Medical Education As I See It



W. Clarke Wescoe, M. D., Lawrence, Kansas, Chancellor, University of Kansas

3:10-3:45 P. M.

The Tired Mother Syndrome



Leonard L. Lovshin, M. D., Cleveland, Ohio, Head of the Department of Internal Medicine, Cleveland Clinic; President-Elect of the American Association of Medical Clinics

3:45-4:00 P. M.

Break—View Exhibits

4:00-4:30 P. M.

Heart Block—Medical Diagnosis and Surgical Treatment



H. Duke Thomas, M. D., Birmingham, Clinical Associate Professor of Medicine and Director, Cardiac Laboratory and Chief, Section of Cardiology, Baptist Medical Center of Birmingham



Charles J. Donald, Jr., M. D., Birmingham, Associate Professor of Surgery, Medical College of Alabama

4:30-5:10 P. M.

Progress in The Surgical Treatment of Heart Disease



John W. Kirklin, M. D., Birmingham, Professor and Chairman Department of Surgery, Medical College of Alabama

Saturday, April 20, 1968

Pre-Business Assembly

Sussex-Cambridge-Winsor Rooms (Crown Room)

E. Bryce Robinson, Jr., M. D., Fairfield, President, Presiding

9:00-9:30 A. M.

AMPAC AND ALAPAC



Hoyt D. Gardner, M. D., Louisville, Ky., Board of Directors American Medical Political Action Committee

9:30-9:45 A. M.

Presentation by The Woman's Auxiliary to The Medical Association of The State of Alabama



Mrs. James C. Guin, Jr., Tuscaloosa, Immediate Past President

Annual Business Session

9:45 A. M.

(1) Report of The Board of Censors

(2) Revision of the Rolls

- (a) County Societies;
- (b) Counsellors;
- (c) Correspondents;

(3) Election and Installation of Officers

(4) Presentation of Past President's Plaque

ADJOURNMENT



"The inconvenience of a cold"

or a cold, NTZ® Nasal Spray provides rapid relief of asal symptoms. Relief starts with the first spray which pens the inferior part of the common meatus. A second pray, a few minutes later, will shrink the turbinates to elp provide sinus drainage and ventilation. Dosage ıay be repeated every three or four hours as needed, or temporary relief of symptoms. NTZ is well tolerated ut overdosage should be avoided.

s a sinusitis deterrent, NTZ Nasal Spray can be used to eep the nasal passages open during a cold to help pre- ent development of acute sinusitis—or to help prevent he acute condition from becoming chronic.

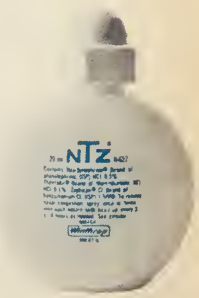
Supplied: NTZ Nasal Spray, plastic squeeze bottles of 20 ml.; NTZ Nasal Solution, bottles of 30 ml. (1 fl. oz.) with dropper.

NTZ is more than a simple vasoconstrictor. It contains

Neo-Synephrine® (brand of phenylephrine) HCl 0.5 per cent, the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction.

Thenfadil® (brand of thenyldiamine) HCl 0.1 per cent, topical antihistamine for reduction of rhinorrhea, sneezing or itching. It combats the allergic reactions that may occur in colds or sinusitis.

Zephiran® (brand of benzalkonium, as chloride, refined) 1:5000, antiseptic preservative and wetting agent to promote penetration and spread of the formula.



Winthrop Laboratories, New York, N.Y. 10016 Winthrop

Valium® (diazepam)
useful adjunct for the coronary patient...

When oppressive feelings and psychic tensions are severe and cooperation with the physician poor, it may be helpful to add adjunctive Valium (diazepam), 10 mg or 5 mg t.i.d., to the coronary patient's regimen. Valium (diazepam) helps to promote the needed relaxation that the patient requires to make him less preoccupied with his condition and more inclined to cooperate in, and benefit from, the total therapeutic program. Valium (diazepam) may be administered in the presence of secondary depressive symptoms.

in the hospital...
(5 mg – or 10 mg t.i.d.)

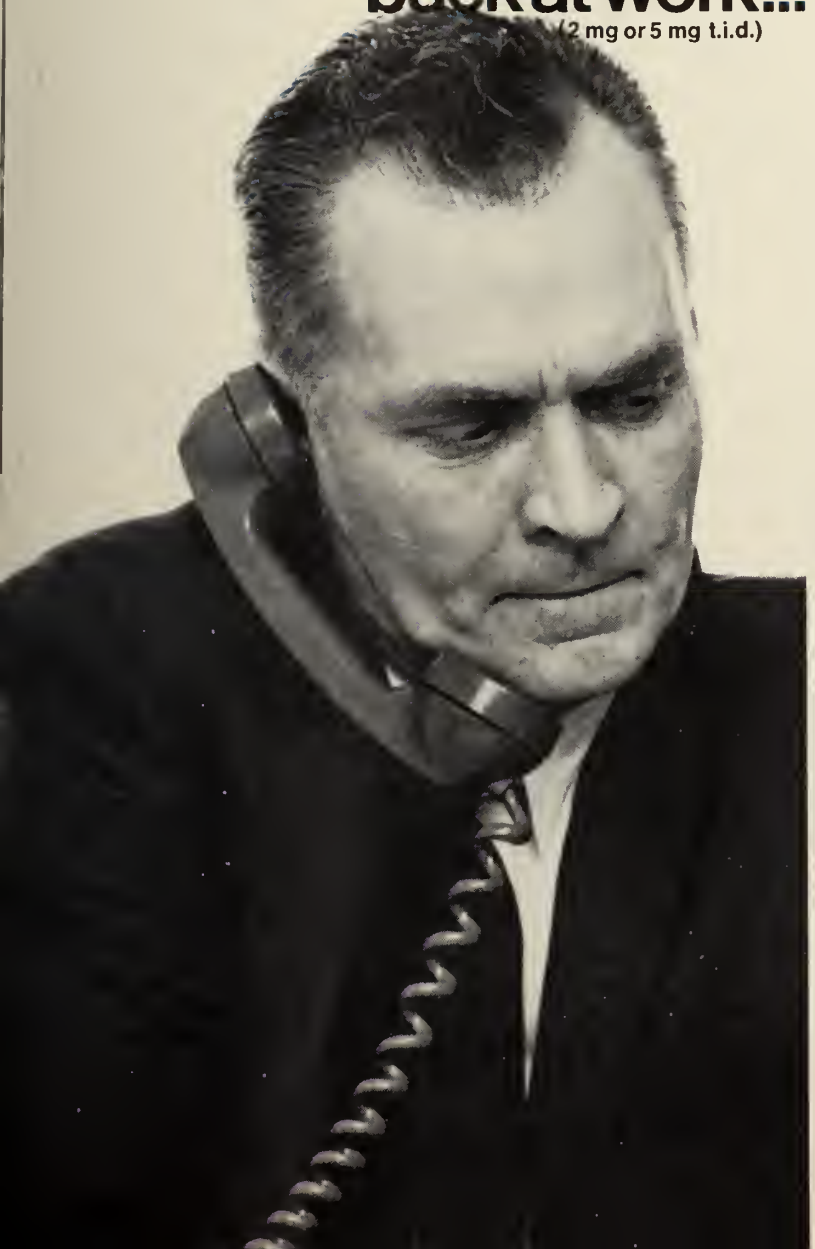


convalescing...
(2 mg or 5 mg t.i.d.)

The heart patient who leaves the hospital to enter a period of slow restorative treatment is often forced to make emotionally difficult adjustments. The resulting stress of this period may again cause psychic tension to mount to potentially harmful levels. To augment your reassurance and the emotional support of his family, a 2 mg or 5 mg t.i.d. regimen of Valium (diazepam) can reduce psychic tension and thereby help the patient to accept necessary restrictions more calmly, and to adjust to his illness more realistically.

Getting back to work presents additional stresses for the cardiac patient. There are often anxiety-producing features in the job which can be more significant than the physical or intellectual demands of the work. Valium (diazepam), 2 mg or 5 mg t.i.d., may be a useful adjunct to reduce overreaction to these stresses and thus help the patient to face job situations more calmly and rationally.

back at work...
(2 mg or 5 mg t.i.d.)



Valium® (diazepam)
to help relieve psychic tension

and for the patient with tension-induced sleeplessness, remember the value of an extra tablet at bedtime

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states, moderate to severe psychoneurotic states with anxiety, apprehension or agitation alone or with depressive symptoms; somatic complaints which are concomitants of emotional factors; acute agitation due to alcohol withdrawal; muscle spasm associated with cerebral palsy and athetosis.

Contraindications: Infants, patients with history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage—Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d.

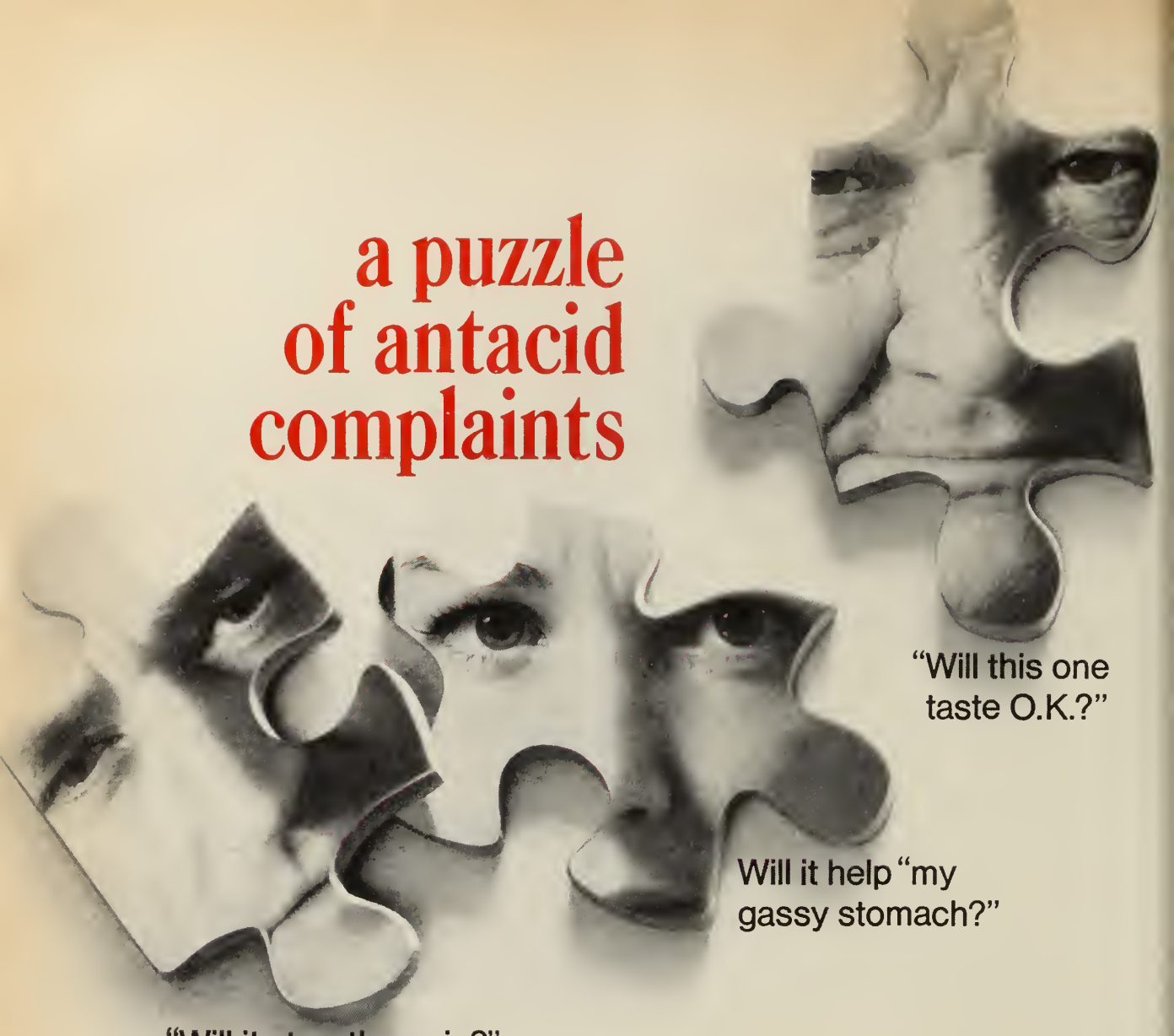
Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See Precautions.)

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 and 500.

ROCHE

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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

a puzzle of antacid complaints



Mylanta®

aluminum and magnesium hydroxide *plus* simethicone

a solution to peptic ulcer distress

Effective neutralization—
with the two most widely prescribed antacids: aluminum and magnesium hydroxides.

Concomitant relief of G.I. gas distress—
with the proven[1] defoaming action of simethicone.

Prolonged acceptance confirmed—
in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg.
Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

Stuart
Division/Pasadena, Calif.
ATLAS CHEMICAL INDUSTRIES, INC.

Immune Reactions and Liver Disease

Two researchers at the Emory University School of Medicine have induced violent allergic reactions in normal mice with a mixture of antibodies and proteins—an experiment which indicates that the body's immune system may be connected with such liver diseases as hepatitis.

A description of the experiment was published recently in The American Journal of Pathology by Dr. Perry E. Treadwell and Dr. Charles A. Santos-Buch of the Emory departments of microbiology and pathology.

Studying the mechanisms of immune responses in living organisms at the molecular and cellular levels, the Emory scientists found that their mixture attacked certain phagocytic liver cells in particular.

These are known as Kupffer cells—they line the tiny blood vessels, or sinusoids, of the liver and have the capacity to phagocytize, or consume, foreign particles and large molecules.

Dr. Santos-Buch, an associate professor of pathology, said the project may indicate that the body's immune system is involved in such diseases as hepatitis—an inflammation of the liver.

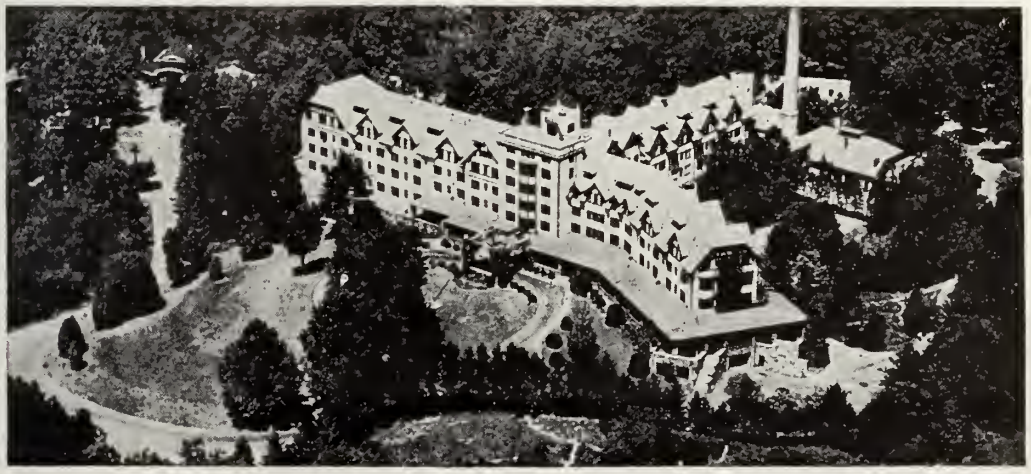
The investigators mixed antibodies—normally a protective mechanism against disease—with purified proteins derived from eggs and cows' milk. These were injected into normal mice which had never been in contact with these specific proteins before, according to Dr. Treadwell, an associate professor of microbiology.

Very quickly a hypersensitive reaction, or anaphylaxis, was produced in the mice.

APPALACHIAN HALL

ESTABLISHED 1916

ASHEVILLE NORTH CAROLINA



An institution for the diagnosis and treatment of psychiatric and neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin coma, electroshock and psychotherapy are employed. The institution is equipped with complete laboratory facilities, including electroencephalography and x-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

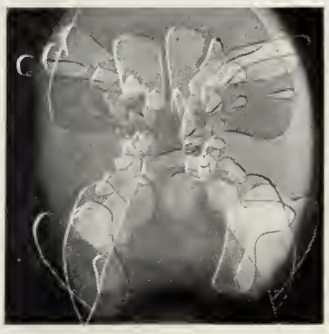
Wm. Ray Griffin, Jr., M. D.
Robert A. Griffin, M. D.

Mark A. Griffin, Sr., M. D.
Mark A. Griffin, Jr., M. D.



A series of frontal sections showing the paranasal sinuses. Each section is in proper spatial relationship to the other planes.

where sinus headache starts



the paranasal sinuses: portals for congestion, pathways for pain

Frontals—pain behind eyes with edema of upper lid and tenderness, photophobia, heavy purulent discharge.

Maxillaries—pain over cheekbone with tenderness, swollen cheeks, pain on chewing, photophobia, purulent discharge with postnasal drip.

Ethmoids—pain behind eyes, ocular tenderness with edema of lids, purulent discharge, postnasal drip, anosmia, fetid breath.

Sphenoids—occipital or vertex headache, pain behind eyes, referred pain to ear, neck, purulent postnasal drip, cough, fetid breath.

where sinus headache stops

NEW Sinudyne™ Compound

CONTROLS THE PAIN ● COUNTERS THE CONGESTION

Each Sinudyne Compound capsule contains:	
Chlorpheniramine maleate	1.0 mg.
Phenylpropanolamine HCl	20 mg.
Phenylephrine HCl	3.5 mg.
N-acetyl-p-aminophenol (APAP)	150 mg.
Aspirin	170 mg.

Sinudyne Compound is a new specific for rapid symptomatic relief of sinus headache and the congestive process producing it. Two decongestants promptly reduce vascular engorgement. As ostia open, free drainage resumes, mucosal swelling diminishes. An antihistamine retards further inflammatory and obstructive edema. At the same time, two reinforcing analgesics ease headache and facial pain.

Prescribe Sinudyne Compound—the *new* comprehensive decongestant/antihistamine/analgesic/antipyretic formula—which promptly and effectively relieves sinus pain as it helps reverse the congestive process.

See next page for complete prescribing information.

BRISTOL

BRISTOL LABORATORIES
Division of Bristol-Myers Co.
Syracuse, New York 13201

where sinus headache stops

NEW Sinudyne™ Compound

CONTROLS THE PAIN • COUNTERS THE CONGESTION

to control pain

N-acetyl-p-aminophenol (APAP), a safe and effective analgesic-antipyretic, is slightly more potent than phenacetin as an antipyretic with apparent less overall toxicity. It affords rapid absorption, early onset of action to reduce fever and relieve pain.

Aspirin (acetylsalicylic acid) is more widely used for pain relief than any other drug. When combined with APAP, the combination affords adequate analgesia with low doses of each agent. Antipyretic action with aspirin is rapid and effective.

to counter congestion

Phenylpropanolamine HCl, an orally effective decongestant, constricts dilated blood vessels of the nasal and sinus mucosa, reducing vascular engorgement. Sinus ostia are opened and free drainage is permitted. While its action is more prolonged than that of ephedrine, it is less likely to cause central stimulation than either ephedrine or amphetamine.

Phenylephrine HCl, a powerful vasoconstrictor, provides additional decongestant action, with minimal central stimulant activity. It is more potent than synephrine tartrate.

Chlorpheniramine maleate has good therapeutic efficacy and a low incidence of side effects. It helps retard further inflammatory and obstructive edema. It is comparable in therapeutic efficacy to other antihistaminics although administered in very low dosage.

PRESCRIBING INFORMATION

Contraindications: This drug should not be used in patients with severe hypertension and hyperthyroidism, organic heart disease, or severe diabetes mellitus.

Precautions: This preparation may cause drowsiness. Patients should be advised not to drive or operate machinery while taking this medication. Use with caution in children under 6 years of age and in individuals with high blood pressure, diabetes mellitus or thyroid disease.

Dosage: Adults: 1 or 2 capsules initially followed by 1 capsule every 4 hours. In more severe cases, 2 capsules every 4 hours. Do not exceed 8 capsules in 24 hours. If symptoms persist for more than 3 days, consult physician. Children—6-12 years: One half the adult dose. Children under 6 years: As directed by physician.

Supplied: Sinudyne Compound, bottles of 100 capsules.

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Some Personal Ideas Concerning The Decentralization Of Health Education in Alabama

I. THE EDUCATION OF PHYSICIANS

By

Tinsley R. Harrison, M. D.

We may recall that the initial impetus for the development of our present four year medical school stemmed from the practicing physicians of the state. The decision to locate the school in Birmingham came after prolonged discussions in which the profession played a large role. It is because of the opinion that the time has again come when the profession has an opportunity and an obligation to offer its views concerning medical education to those who will render the final judgments that these lines are written. They are submitted mainly from the standpoint of a physician rather than that of a teacher, although I see no conflict whatever between the two points of view.

Initially, medical education and service to patients were conducted jointly. Thus, such physicians as Moses in Egypt and Hippocrates and his pupils in Greece were trained in the temples of healing. In Britain, medical education developed mainly, and has continued to be largely centered, around the hospitals. Most of the crude education offered in the United States prior to the middle of the nineteenth century was by means of the apprentice system.

The recommendation almost 60 years ago by Abraham Flexner that undergraduate medical education in the United States should follow the German rather than the British pattern and should be entirely a function of the universities was warmly supported by the American Medical Association and by the Foundations. It was undoubtedly the correct decision under the existing conditions. The consequent centralization was not only inevitable but highly desirable at a time when many of the diploma mills had no connection with universities and only a vague relationship to hospitals. Furthermore, there were then only a few hospitals in this country that would have been capable of conducting an intellectually desirable educational program.

But there are several indications that the time has now come when it may be desirable

to secure the dual advantage that would stem from firm retention of the tie to the university while at the same time exploring opportunities for developing closer relationships with such hospitals as desire and are suitable for such a liaison. As of ten or even five years ago, such a suggestion would have seemed preposterous to many teachers and hopelessly utopian to most practicing physicians. The funds needed to insure that decentralization could be achieved without grave loss of intellectual quality were simply not available. But the Regional Medical Program may possibly offer us aid in overcoming this difficulty.

Another new development is the Millis report which stems from the efforts of organized medicine to seek the counsel of wise laymen concerning the graduate education of physicians. The Commission devoted a major part of its efforts to consideration of the best means of preserving the traditional family physician. It is significant that this report properly pinpoints medical education as the key to the solution of the problem. Many of us may disagree with some of the recommendations but it will be difficult to dispute the main point, that since society needs not only specialists, but also "primary" physicians, it is the job of the medical schools to train both groups.

At present most medical students have little exposure to any physicians except those who are highly specialized. Small wonder that the number who prefer breadth to depth and who thus wish to become family physicians is steadily shrinking. Our faculty members can not be blamed for expressing their sincere opinions to students who seek their advice. Such counsel is presumably one of the main reasons for the steadily increasing percentage of specialists. This is not meant to imply that we have too many specialists. The reverse is true. But our deficit in "primary" physicians who wish to provide comprehensive care is still greater. The exposure of the medical student to both groups should place him in better position to know which type of practice will bring him the greatest satisfaction. That such exposure should be subject to important educational safeguards will be emphasized in the later discussion.

Another far-reaching and almost revolutionary recommendation in the Millis report involves the abolition of the internship as it now exists. The graduating student would immediately proceed into a residency program aimed either at training for family practice or for one of the conventional specialties. The possible relationship between this program and a plan for partial decentralization of undergraduate education will also be considered later.

Of special interest to us in Alabama is the report to the legislature by the Booz, Allen and Hamilton management consultants. They were asked to recommend future steps in medical education in the state. Their recommendations were both general and specific. We shall consider the former first.

Recognizing the great and urgent need for more physicians in Alabama, the Chicago consultants recommended expansion both of undergraduate and postgraduate medical education in Alabama. They suggested that undergraduate education be conducted not only in Birmingham but also in Tuscaloosa, Mobile and—later—Huntsville. These ideas would, if followed, represent initial steps in decentralization, although this term was not employed in the report. We may now turn to some of the problems involved in complying with these recommendations.

1. The quantitative deficit—now almost universally conceded—in the number of practicing physicians is partly due to the long-time shortage of sufficient funds for medical education. But even if this is overcome there will remain another potent factor. This is *lack of a sufficient number of well qualified applicants* for admission to medical schools. One of the causes is the failure to inform high school seniors of the wide variety of careers that are available to physicians. This could be partially remedied by an annual lecture given by each fourth year student at

the high school from which he himself was graduated. But the more serious barriers are the time and the cost involved in securing a medical degree. These can only be surmounted by *certain long overdue changes in the educational program.*

The *time barrier* to a medical career could be materially shortened by two steps. One of them would involve abolishing the long summer vacation and reducing the premedical course to 24 calendar and academic months. Each academic month would consist of four weeks only. Thus there would be four annual quarters of 13 weeks, twelve of them spent in education and one in vacation. However, those premedical students who preferred to pursue the present academic course would be free to do so. The second step, which is somewhat similar to one of the recommendations of the Millis report, would involve combining the undergraduate course and the internship into four calendar years with similar alternation between 3 months—4 weeks each—of work and one week of vacation. The total result would be reduction by three years—for most students—of the interval between graduation from high school and completion of internship.

Two attacks could be aimed at the *economic barrier.* One of them would call for giving each student at the start of the first year the minimal training in nursing and laboratory procedures that would enable him to earn his food and lodging in return for a few—perhaps 12 per week—hours of service to the hospital, which would incur neither financial loss nor profit from the student's work. With proper planning and supervision, this activity could also be made intellectually rewarding to the student. Such supervision, coupled with informal bedside teaching about the patients for whom he was providing services, could be done by the more advanced students, aided by the house staff.

There would still remain the cost of tuition, books, supplies and incidentals. This could be met by a broad application of the program instituted by Mrs. Katherine Dorsey as a memorial to her husband, the late Claude E. Dorsey, Jr. It has now been in operation as a pilot project at the Medical College of the University of Alabama for more than 5 years. This plan involves repayment pledges for sums advanced to students, interns or residents. The annual sum returned to the school depends not only on the amount received but on the net professional earning of the recipient. Since these payments are not for loans but in fulfillment of pledges—analogous to those made to the United Fund—they are tax deductible. Anyone interested in further details of the Dorsey plan may secure the information by writing to our Committee on Loans and Scholarships.

It may be reiterated that unless these or other appropriate measures are taken toward overcoming the time and economic factors that prevent many fine young people from seeking a medical career, we shall probably be unable to achieve our goal of training a large number of additional physicians in Alabama. But even if we are able to secure the desired numbers of well qualified applicants, there will remain other pressing problems.

2. Many *additional teachers* will be required. It is likely that the institution of preclinical training in Tuscaloosa with the option to pursue either the M. D. or Ph. D. degree will be a vital long-range step toward meeting the deficit of preclinical teachers. But at a time when there are already more than 1000 unfilled budgeted positions in the medical schools of the United States and when the Regional Medical Program is creating a further need for academic personnel, the task of securing at an early date the necessary additional teachers will not be easy. The likelihood is that, over the long pull, most of our additional teachers will come from our own trainees in both the preclinical and the clinical fields.

3. Another problem involved in decentralization and expansion is *clarification of the role that the Regional Medical Program may play.* The law as written is aimed at con-

(Continued on Page 1079)



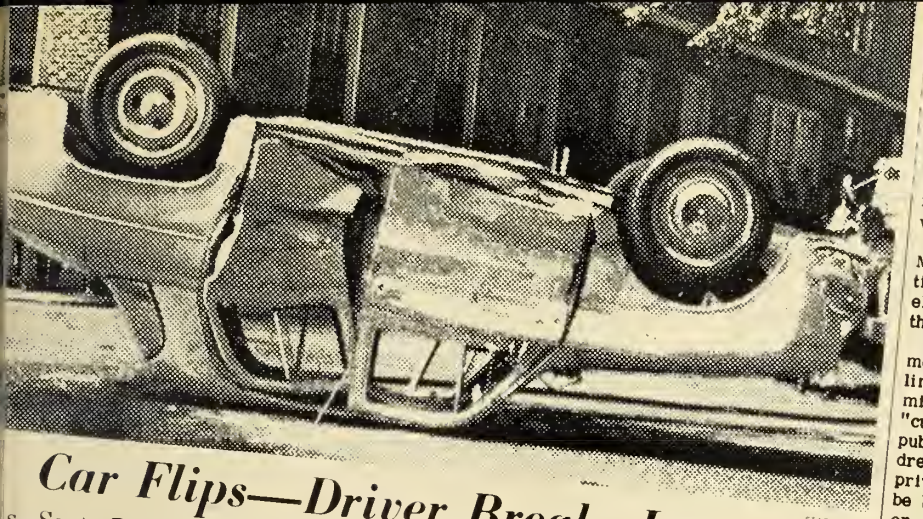
NEW! THE RITTER COAGULATOR

from the makers of the famous Bovie electrosurgical units . . .

The Ritter Coagulator is a low-in-cost but high-in-quality electrocoagulation instrument for wall or shelf service in your office. Made by the makers of the famous hospital Bovie, it has been engineered to utilize every advantage of today's advanced state of electronic circuitry. It will coagulate, desiccate and fulgurate—and you can handle scores of day-to-day applications in dermatology, gynecology, rhinolaryngology and proctology. Easy, safe to operate. Compact—only 8½ x 5 x 4 inches. Ask for a demonstration.

DURR
Surgical Supply Co.

MONTGOMERY BIRMINGHAM HUNTSVILLE



Car Flips—Driver Breaks Leg

s, Sept. 7. John P. Jones of incurred a broken leg today driving

Patrolman B. R. Brown, the car hit a fire hydrant and flipped over on its

STAFF PHOTO

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He's had enough excitement for one day.

For the patient who has been through an accident, the worry and anxiety following the experience may actually heighten the perception of pain. This is why there's a classic ¼ grain *sedative* dose of phenobarbital in Phenaphen with Codeine—*to take the nervous "edge" off,* so the rest of the formula can control the pain more effectively.

Phenaphen® with Codeine

Phenaphen® with Codeine No. 2, No. 3, or No. 4 contains: *Phenobarbital* (¼ gr.), 16.2 mg. (Warning: may be habit forming); Aspirin (2½ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Hyoscyamine sulfate, 0.031 mg.; Codeine Phosphate, ¼ gr. (No. 2), ½ gr. (No. 3), or 1 gr. (No. 4). (Warning: may be habit forming).

THE COMPOUND ANALGESIC THAT CALMS INSTEAD OF CAFFEINATES

Indications: Phenaphen with Codeine provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** 1 or 2 capsules at 2 to 4 hour intervals, or as directed by physician. For further details see product literature.

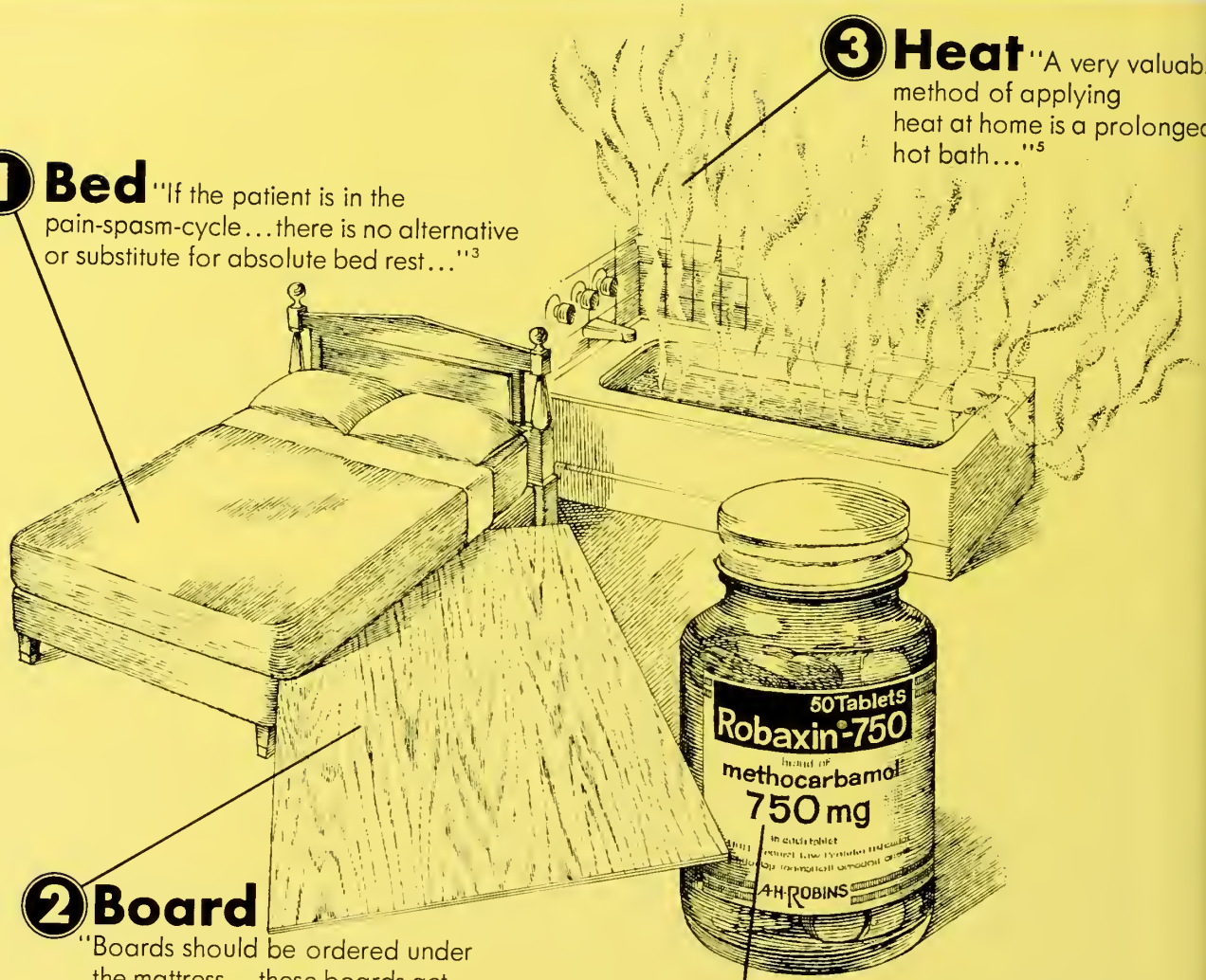
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LOW-BACK PAIN

A CONSERVATIVE, FOUR-POINT PROGRAM

The low back pain that is most frequently seen in general practice is mechanical in nature, i.e., postural back pain, joint dysfunction and acute back strain.[1,2] For this type of discomfort, a conservative regimen is usually sufficient to relieve aches and pains, and to help keep the patient functioning. Components of this basic program include:



1 Bed "If the patient is in the pain-spasm-cycle... there is no alternative or substitute for absolute bed rest..."[3]

2 Board "Boards should be ordered under the mattress... these boards act by immobilizing the spine..."[4]

3 Heat "A very valuable method of applying heat at home is a prolonged hot bath..."[5]

4 Robaxin®-750 (methocarbamol, 750 mg. capsule-shaped tablets) A well-tolerated[6] skeletal muscle relaxant, methocarbamol helps relieve spasm "...without interfering with normal tone and movement."[7] And there is little likelihood of sedation.[6]

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References: (1). Gadfrey, C.M.: Applied Therap. 8:950, 1966. (2). Gattschalk, L.A.: GP 33:91, 1966. (3). Rawe, M.L.: J. Occup. Med. 2:219, 1960. (4). Cazen, L.: Sauth Dakata J. Med. 18:26, 1965. (5). Sata-Hall, R.: Med. Sc. 14:23, 1963. (6). Weiss, M. and Weiss, S.: J. Am. Osteapath. A. 62:142, 1962. (7). Feuer, S.G., *et al.*: New Yark J. Med. 62:1985, 1962.

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tinuing education for physicians as a means of bringing scientific advances as rapidly as possible to the general public. Thus the purpose is not to further expand the medical schools as referral centers but rather to provide in outlying communities certain facilities and "know how" that are currently available only in the schools and in some of the larger private hospitals and clinics. The present law does not include undergraduate education as one of the purposes. It is therefore to be anticipated that those responsible for policy in this program will look askance at any steps that appear to further aggrandize the medical school centers. Such moves toward centralization may seem to be opposite to the decentralizing aims of the law. But there is another aspect of the picture.

The purposes of the regional program can only be achieved through people and the standard of accomplishment will depend on the ability of the people selected. The attempt to secure persons of high quality will be enormously facilitated if they have faculty appointments and if they are given certain responsibilities not only for graduate and continuing but also for undergraduate education. But for them to accomplish this by frequent trips to the medical school will impair their usefulness in their primary work in the outlying cities. Thus we have the Dunsinane and Birnam Wood situation. The logical solution is to send the students to these teachers, provided the student's education will not be impaired but rather perhaps facilitated by so doing.

Personal association with a small "away from home base" educational program for more than a year has convinced me that medical students provide a far more potent stimulus to physicians than an experienced senior teacher can supply. The advanced student in the last months of his clinical years is an immense aid to the practicing doctor in his efforts to bring the newest advances and the best care to his patients. Thus the primary purpose of the regional program will be much facilitated by decentralization of undergraduate clinical education. The program will necessarily involve salaries for personnel that will be active in bedside continuing refreshment of physicians. Little additional expense will be involved if a few fourth year students are also at the bedside. Thus the natural and inevitable opposition of the policy makers of the regional program to utilization of the funds for further enlargement of medical school home base centers will presumably not apply if undergraduate clinical education is widely diffused. Indeed, one may venture the prediction that such decentralization will be one of the major determinants of the success or failure of the program. Conversely the medical schools simply will not have the necessary funds for this plan unless a portion—but by no means all—can be supplied by the Regional Medical Program. Thus any plan for large scale expansion of undergraduate education to be accompanied at the clinical level, by widespread decentralization will remain tenuous until there is an elucidation of the relationship of such a plan to the regional program.

One of the potential large advantages to be reaped from decentralization is a more favorable opportunity for teaching of small groups or even in a one to one ratio. This will enable us to move toward a *proper balance between the various aspects of medicine.* The preclinical subjects which are almost entirely intellectual, can be taught reasonably well to large classes. Thus, given sufficient personnel and large enough facilities, the *preclinical* classes in Birmingham can be increased to 125 or to almost any desired size without serious impairment of the quality of education.

But *clinical medicine* is different. Here not only the *science* but also the skills are important. The techniques of securing information—the *arts* of history taking and of conducting the physical examination—are essential precursors to the reasoning—i.e., the

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science—from such information. If the diagnostic skills are faulty, the diagnosis is likely to be erroneous despite good scientific thinking. Similarly, much of our treatment depends more on skillful technique than on scientific reasoning. For a teacher to attempt to impart a knowledge of physical diagnosis or of surgical methods to a large group of pupils simultaneously is analogous to attempting to teach piano playing by the lecture rather than by the one to one keyboard method.

But there is still another aspect of clinical medicine. It is not only a science and an art but also a *calling,* i.e., a profession in the highest sense of the word. The impersonal assembly line type of teaching which is inevitable when classes are large, is highly ineffective as a means of inspiring students, of motivating them, of imparting ideals, and of developing that high sense of obligation toward patients which is the hallmark of a good physician. These goals can be best achieved when there is close association and warm friendship between teacher and student.

There is no intent here of belittling the science of medicine.* (see below) But the art and the calling are also important. Under the surge of the huge tides of research funds as compared to the small brooks of educational support, there is a strong tendency in all our medical schools toward neglect of these two of the three legs that are each essential for support of the edifice of excellent patient care.

The remedy for these deficiencies in clinical teaching is not further indefinite expansion of our colossus in Birmingham. What is needed there is first the expanded facilities and faculty for the planned increase of the preclinical classes to 125 students. Otherwise the needs are mainly qualitative rather than quantitative. The diminishing but still present defects in some of our undergraduate teaching should be overcome. The inefficiency in the University Hospital that stems from inadequacy of the physical plant can only be remedied by extensive and expensive remodeling. Adequate physical facilities and hospital beds for our internationally known research and training programs in heart, stroke and cancer are essential. This is especially true now that we have begun to assume the responsibility for training the clinical personnel that will be needed in the entire state for the Regional Medical Program, and also for the highly decentralized pattern of clinical education that we shall hope to ultimately achieve in the state.

Before discussing the details of the suggested program, we may pose two fundamental questions. Granting that the plan for diffusing clinical education over the state will bring benefits to patients and to physicians, will it not seriously impair the quality of the student's education? If so, will not the long range loss exceed the gain? My own answer to the last question would be a resounding "yes." Anything that significantly reduces the quality of medical education will ultimately lower the standards of care that the public receives. But the answer to the first question is more complex.

A distinction must be drawn between instruction, the imparting of knowledge—much of it soon to be forgotten—and education, the development of wisdom and of character. One suspects that as regards pure instruction, the advantage is all on the side of mass production at the "home base" medical center. It is likewise probable that the same is true of wisdom insofar as this quality stems from an understanding of scientific principles. These can be best instilled in an institution thoroughly permeated by an atmosphere of curiosity and by research activity. But wisdom in a physician involves not only com-

* The day has long passed when science was limited to the preclinical subjects. Both the physician and the surgeon now utilize science constantly at the bedside.

prehension of scientific concepts but also human understanding. Here the advantage is probably on the side of the closer association of the small groups in the small hospitals.

The greatest potential benefit from the decentralization of clinical education probably stems from the opportunity for close contact and friendship between teacher and student. The resulting older-younger brother type of emotional bond is likely to have much greater influence on the future attitudes, motivations and sense of responsibility of the embryonic physician than can any amount of purely intellectual stimulation. This opinion and the several preceding ones are based to some extent on *a priori* reasoning but mainly on personal experience. Even so, the wisest course would be to defer judgment pending a controlled experiment in which one-half of a given class received all of its training in the traditional pattern and the other half had a small portion of its clinical education according to the plan suggested herein. Should, after several repeated trials, there be demonstrated statistically significant inferiority of the latter group as regards bedside performance, my own ideas and suggestions would be sharply revised. The remainder of my discussion is based on the premise that *decentralized training during a portion of the clinical period will not be shown to be inferior.*

Thus far our discussion has been concerned with the broad principles—expansion and decentralization—of the report by Booz, Allen and Hamilton. We may now consider certain specific steps, some of which were suggested and others not mentioned by the Chicago consultants.

The Booz, Allen and Hamilton report recommended expansion of the entering classes in Birmingham to 125 students as the most rapid and economical method of increasing the number of physicians. This step was to be taken as soon as the necessary additional facilities and faculty could be obtained. It was emphasized that the proportion of the medical center budget derived from research grants and from payment by patients was already approaching the maximum. Therefore, additional legislative support both for construction and for operation would be imperative. Strong emphasis was also placed on the necessity for maintaining the existing high academic standards.

Decentralization in Birmingham: The suggestion has already been made that the present regular medical course be completed within three calendar years and that training during the fourth year be roughly equivalent to the present internship. Such a program would involve spending the first 18 calendar months in preclinical, correlative, and elective work and the next 18 months in regular clerkships and electives. But if our classes are expanded to 125 and practically all of this clinical training is provided, as at present, at the University Hospital and at the Veterans Hospital, our patient/student ratio will be too low. Likewise, we shall be suffering from the above mentioned evil of bigness with its inevitable impersonal assembly line teaching. A possible remedy is as follows:

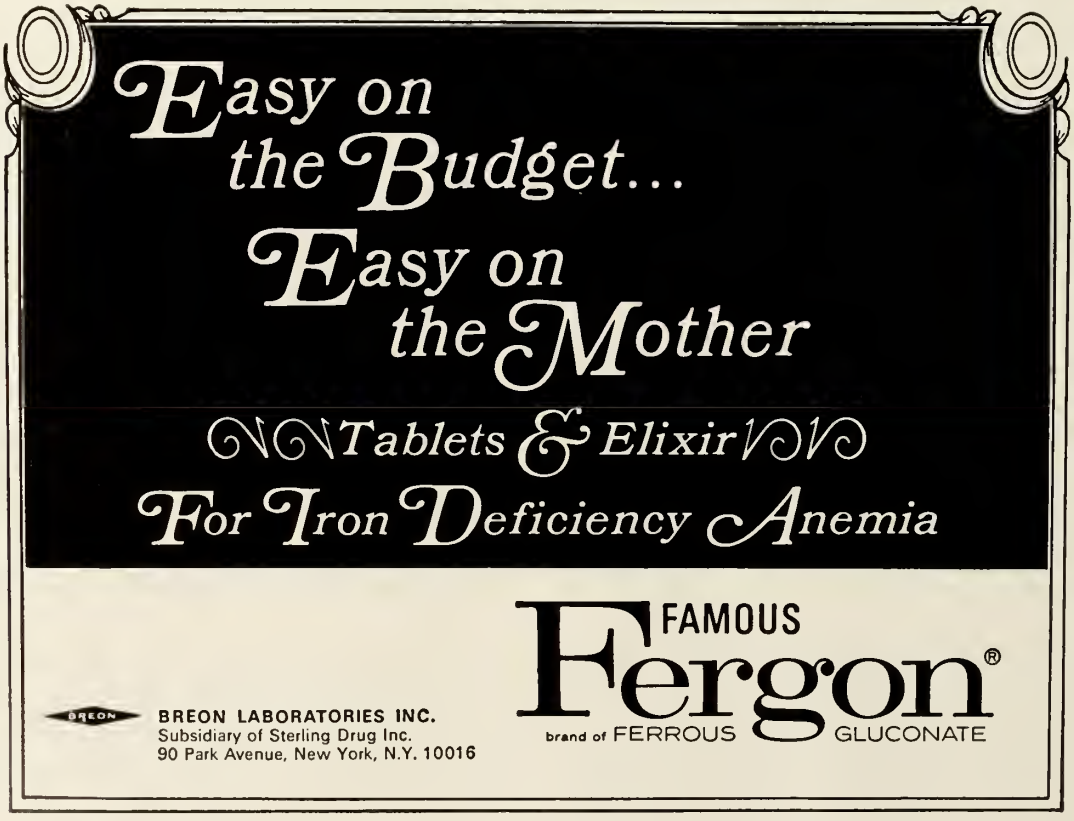
Twelve to 14 of these 18 months of initial clinical training might be spent at the University and Veterans Hospitals. During this period strong emphasis would be placed on the relation of medical science to the care of patients. The remaining four to six months would be spent at one or more of the other Birmingham hospitals. Experience has shown that it is very difficult for practicing physicians to provide good training for students unless they are aided by full time teachers. The doctor in practice owes his first obligation to his patients. He rarely has the time required for organizational and administrative details. On frequent occasions the emergency illness of his patients interferes with regular attendance at teaching assignments. Despite this, the man on the firing line often has something to offer that the full time teacher does not provide. The best teaching comes from a combined exposure to both types. This has rarely been feasible at our

private hospitals in the past. But it is possible that the Regional Medical Program may be able to supply part of the funds for full time faculty members to be stationed at such private hospitals as desire them and thus aid in providing a means of solving this dilemma. However, it may be noted that this concept of instituting undergraduate education at such private hospitals in Birmingham as desired it and met the needed academic requirements was not included in the report of the Chicago consultants.

The specific suggestion is that the nine calendar month period that is roughly equivalent to our present third year and a portion —perhaps one-half—of the next nine months be spent entirely at the University and Veterans Hospitals. During this period there should be adequate time for electives in order to maintain the flexibility of our present curriculum. Such flexibility is essential when we realize that some of our students will become family physicians, others specialists, some teachers, and still others will pursue careers in research or in public health.

The remainder of the period corresponding to the present fourth year might be spent at such other hospitals in Birmingham as care to enter into the program and demonstrate that they can provide first class undergraduate education. It should be emphasized that all authority for approval of such programs should be centered in the hands of the chairmen of the clinical departments of the medical school and that direction of the education should be the function of full time faculty members appointed by such chairmen. This is necessary in order to be certain that the students at the private hospitals are *trained* rather than *used.*

There is no intention of implying that any hospital or any individual physician should feel an obligation to enter such a program. It is likely that some hospitals would prefer to continue as at present. Others would perhaps desire to participate in one or more fields—medicine, surgery, obstetrics, etc.—but not in others. Even should the staff of a given hospital wish to participate, any doctor on that staff could keep his own patients out of the program. But if he did decide that



he wished the students to work with his patients, he would need to agree with two conditions. Those of his patients who were "worked up" by the students could be used for teaching by such faculty members as were assigned educational responsibilities by the departmental chairmen. Likewise, the latter would be free to withdraw the students from the patients of any physician, if after a reasonable trial period, the students consistently reported that the time spent with the patients of this particular physician was intellectually unrewarding. This does not mean that each doctor who elected to come into the program would be expected to undertake formal teaching. But he would be expected to "think aloud at the bedside" in the presence of the student. Such formal teaching as was necessary would be done partially by those of the hospital staff who desired it and who were especially gifted as teachers. The remaining formal teaching would be conducted by the full time personnel assigned to that particular hospital. Assuming approval by Washington of this general policy, the salaries of the latter would be partly derived from the Regional Medical Program. There is little doubt of such approval provided it is clear that the funds supplied are to be used, not for expansion of the medical center but to facilitate the aims of the regional program.

Should there be developed a statewide closed circuit television system for medical education, the problem of formal teaching would be simplified.

The proposed plan would involve division of responsibility. Thus all final decisions as regards patient care would remain in the hands of the patient's private physician. But authority as regards education would be reserved for the departmental chairmen and their full time appointees. Such division of responsibility might easily lead to conflict because of the hospital's proper primary concern with patient care and the medical school's first attention to education. Should irreconcilable situations develop, the only remedy would be withdrawal of the students from that particular hospital. But serious conflicts are unlikely to appear when there is a large degree of mutual confidence and of personal friendliness. It is in these respects—an almost complete absence of serious town-gown frictions and a generally happy relationship between the physicians of the state and the medical school faculty—that we in Alabama are especially fortunate.

There is an alternative to this suggested plan for "spreading out" undergraduate education in Birmingham. Should private hospitals prefer not to participate or should experience, preferably to be based on a controlled experiment rather than on opinion, indicate that the plan is detrimental to the student's education, there will be a strong case for the construction of a second University Hospital within our present medical center. But this move would be dependent on legislative support for the operating deficit of such a hospital with an understanding that an indigent patient could be referred from any locality in the state that lacked the necessary facilities for the care of that particular patient. Presumably the necessity for such referrals will be inversely proportional to the success of the regional program and of Appalachia in meeting the needs of other communities.

Another recommendation of the Booz, Allen and Hamilton report was that a *preclinical educational program be established in Tuscaloosa as an integral part of the Medical College of the University of Alabama.* It was estimated that this phase of expansion could be in operation within about 5 years. If, as suggested above, this program were so arranged that the student could have the option after the first year of moving either toward the M. D. or the Ph. D. degree, the Tuscaloosa development would be an especially valuable step toward overcoming that deficit of teachers, especially in the preclinical areas, which, unless remedied, poses a serious threat to the expansion of both medical and paramedical education.

As a further step toward diffusing and enlarging the program of the Medical College of the University of Alabama, the Chicago



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consultants recommended the initiation of clinical education in Huntsville. This would initially be confined to internes, residents and continuing refreshment for practicing physicians. But, it was further recommended that after the suggested programs in Birmingham, Tuscaloosa and Mobile (see below) were well under way, undergraduate clinical teaching be started in Huntsville. Subsequently, and after about 10 years, consideration should be given to establishing preclinical training there.

The desirability of a long range plan for undergraduate medical education in North Alabama is beyond question. Whether the initial step should be taken in Huntsville, in the Tricity area or in Decatur, should depend on (1) the availability of hospital facilities and (2) the attitude of the local profession. The new hospital to be built under Appalachia and the more central location speak for a start in Decatur with subsequent extension to both Huntsville and the Tricities. But in view of the increasing importance of biophysics, biomathematics and space medicine, it is desirable that special elective programs in these areas be made available in Huntsville in the near future.

Among the more important recommendations were those pertaining to Mobile. Three successive steps were suggested. Each of them would be undertaken by consultation and cooperation between our present medical school and the University of South Alabama. The first step would involve strengthening the graduate program—internships and residencies—by establishing a formal affiliation between the Mobile General Hospital and our present Medical College in Birmingham as well as appointment of full time directors of the major services with faculty rank. The next move would be the institution of undergraduate clinical teaching by sending some of our students from Birmingham or Tuscaloosa to Mobile. Finally, and in about 8 to 10 years, when preclinical teaching in Mobile had been developed in a new medical school as part of the University of South Alabama, the clinical program there would be turned over to that school. We may now consider some of the problems involved in carrying out these recommendations.

A sharp distinction should be drawn between the recommendations concerning Tuscaloosa and Huntsville and those about Mobile. The former suggests geographic decentralization only while both geographic and eventual administrative decentralization are recommended for Mobile.

The quality of a medical school is heavily dependent on (1) the standing of the parent university, (2) financial support, (3) suitable hospital facilities and affiliations, (4) the educational program, and (5) the quality of its entering student body. But perhaps the most important of all the determinants is the quality of its leadership and of its faculty and especially of the dean and of the departmental chairmen. Only time can tell us with certainty whether it will be possible for the new university in Mobile to attract and hold a faculty comparable intellectually to that in Birmingham.

In my opinion, it is our responsibility in Birmingham to adopt an initially optimistic view, to discard academic chauvinism and to attempt to follow the recommendations of the Chicago consultants. This will first involve appointing, with the approval of the authorities of the University of South Alabama and of the Mobile General Hospital, an outstanding educational leader whose first function would be to select full time chiefs of the major clinical divisions. These individuals should be persons of the same general caliber as those holding comparable positions in Birmingham. Because of the previously mentioned national shortage of academic personnel, this will necessarily be a slow process. But to appoint to key positions men of lesser stature because they could be secured more rapidly, would be to establish a mediocre school in Mobile and to make it a "second

(Continued on Page 1090)



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team" for decades to come. Thus, we should be willing to compromise on velocity but not on direction. Realizing that the future health of the people of Alabama is closely dependent on the caliber of medical education in the state, our aim should be to offer all possible aid to our friends in Mobile, provided this does not involve reduction of academic standards.

Statewide decentralization: Let us take another puff or two at our opium pipes and proceed further with what may seem to some of you as a sheer dream about an unrealizable medical Utopia. I propose that our long range plan should envision some degree of clinical education in every Alabama community with a population above 10,000, provided the conditions are favorable. Such conditions include a good hospital and a strong desire on the part of the profession and the hospital authorities for clinical teaching. Space does not permit a full discussion of the requirements, advantages and drawbacks of such widespread decentralization. My own opinion, which is favorable, is obviously biased even though founded on recent personal experience. I, therefore, refer you to the professional and administrative staffs of the Russell Hospital in Alexander City and —for the worm's eye view—to those of our present fourth year students who have elected this program for periods of one to several months.

It has been previously suggested that a portion of what would correspond to our present fourth year be spent in citywide education in Birmingham. Logically, the appropriate time for statewide decentralization would be the period now devoted to the internship. If the suggested accelerated plan is adopted, this would occur after three calendar years in medical school. By this time the student would have received training approximately equal to that which he now receives in four years.

The educational program during this final year would probably vary from one hospital to another. Perhaps the most common plan would be aimed at training comprehensive primary physicians along lines similar to those recommended in the Millis report. This means emphasis on medicine, pediatrics and the application of preventive medicine to the individual patient. There might also be additional training in obstetrics, medical gynecology and in those surgical emergencies—mainly traumatic—that call for immediate treatment. Obviously there should be experience in the recognition, but not necessarily in the treatment of the acute surgical disorders of the abdomen. Following such a year the student would be graduated and would be well qualified to enter directly into a residency program designed either for primary physicians or for one of the specialties.

Some students and some hospitals might prefer that this entire year of "internship before graduation" be spent in one or more of the broader specialties, e.g., general surgery, internal medicine or a combination of them. Such a year would also provide a sound basis for proceeding directly after graduation into a residency as suggested in the Millis report.

An attempt to make radical changes in any educational program is certain to arouse strong protests. *A priori* it will not be possible to decide whether the objections will be based on sound reasoning or on inertial attachment to the *status quo* or on both. There would therefore be a large advantage during the initial years in comparing the proposed plan with our present educational program. Some of the students would proceed as at present while others would be trained according to the new method. An impartial evaluation by external examiners using not only written tests but also practical examinations on patients might indicate clear superiority of one plan over the other. Such a comparison might indicate, as some of my friends believe, that while decentralization is desirable the suggested attempt to combine it with a reduction of the total undergraduate-internship period is undesirable. Should, as

it seems to me more probable, the comparison be inconclusive, the ultimate decision would depend on the preference of the students as well as on the desires of the profession and of the affiliated hospitals.

It should be reemphasized that *these suggestions do not imply sacrifice of the quality of the student's education* in order to obtain the other advantages of decentralization. The judgment concerning this question should be based, not on preconception and subconscious prejudice, but on data secured from a controlled experiment.

Finally, we may take a hard-nosed look at the dollar aspects of the problem. Any plan for expanded medical education will necessarily involve a large increase in cost. Nothing could be more short-sighted than to sacrifice lives in order to save dollars. The question is whether the proposed plan will bring us high quality education at the least additional expense to our state tax payers. The answer is almost certainly in the affirmative.

The University of Alabama already has a planning grant for the Regional Medical Program and will presumably soon receive an operational grant. Both the Regional Medical and Appalachia Programs involve partial federal support for the full time personnel needed to insure continuing education and first class medical care in the affiliated hospitals. This probably means a portion of the salaries not only for a few clinicians but also for radiologists and pathologists and perhaps for the biochemists and microbiologists that are needed for the supervision of hospital laboratories. *Thus a significant fraction of the expense for the needed additional full time faculty personnel can be supplied by federal funds but only provided there is decentralization of undergraduate medical teaching.* Therefore, the correlation of expanded undergraduate education with the facilities and personnel to be provided by the Appalachia and Regional Programs will cost the tax payers of the state less than training the same number of additional physicians in a single new state school centered in one community only.

The Regional Medical Program involves a partnership between the medical schools, the practicing profession, the general public and the federal government. Its failure will involve a monstrous waste of funds and will represent one more nail in the coffin of private practice. But it need not fail. It offers the chance to reap three advantages from a single tax dollar. These are ready availability to patients of recent advances, continuing day by day medical refreshment for physicians and the means of partially financing the full time faculty members at outlying hospitals that are necessary to supervise decentralized clinical education of students.

To Summarize: The suggestions that have been advanced are, in the main, in accord with the recommendations of the Millis report at the national level and with the general principles of the Booz, Allen and Hamilton report to our state legislative committee.

There is an urgent need for clarification of the policy of the Regional Medical Program as regards partial support of such undergraduate clinical education as may facilitate the purposes of that program.

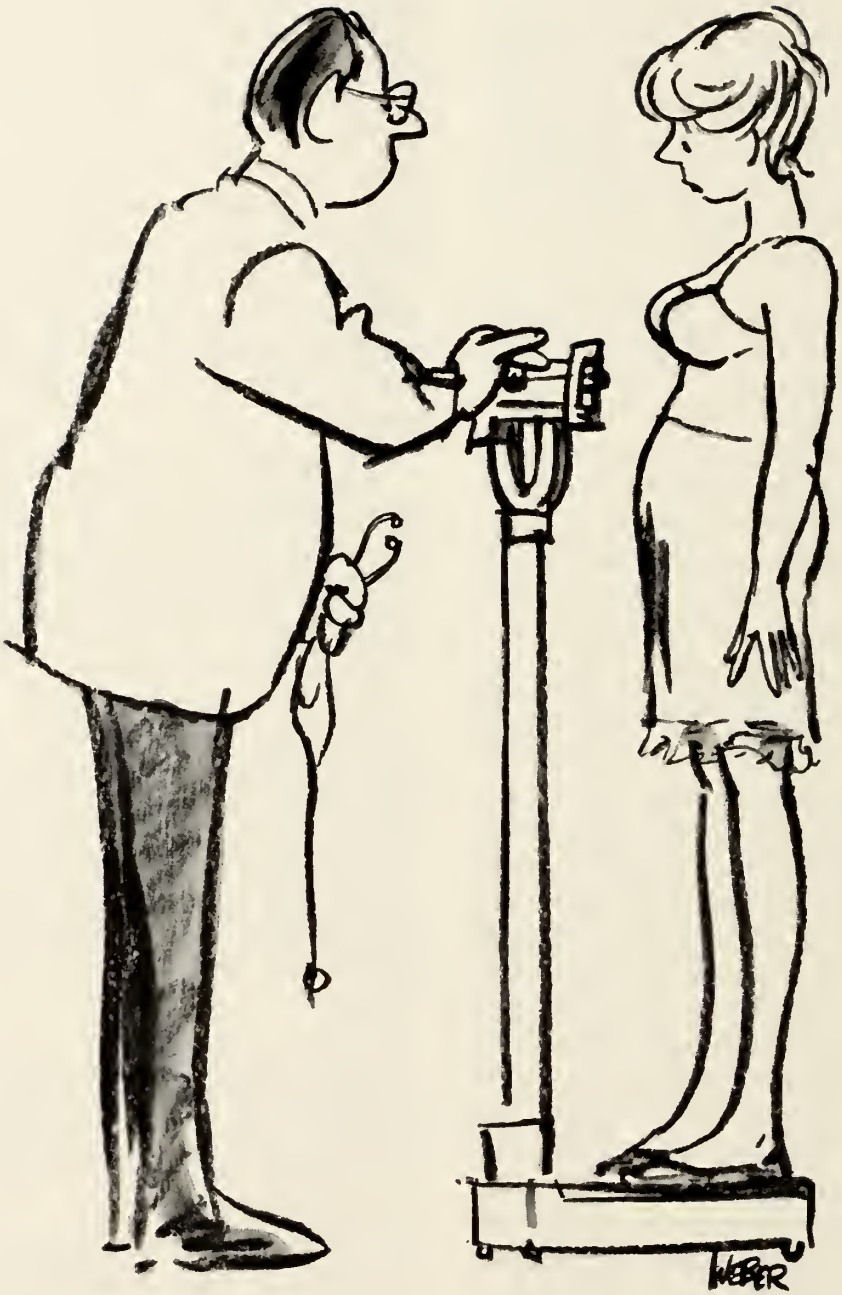
We should attempt to utilize existing facilities and those already planned to the maximum for a program of expanded health education.

Certain long overdue steps should be taken to reduce the time and economic barriers against a medical career and thereby to attract larger numbers of well qualified applicants to medical schools.

There should be expansion of preclinical education not only in Birmingham but also in Tuscaloosa and ultimately, in Mobile and perhaps also in North Alabama.

There should be multiple "home bases" for clinical teaching, the larger one being in Birmingham and the smaller ones in Mobile

(Continued on Page 1094)



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Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness. Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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Dextro-amphetamine sulfate (15 mg.) with Meprobamate (300 mg.) Sustained Release Capsules

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466-7

(Continued from Page 1091)

and in North Alabama. From these home bases, students would be allowed, during a portion of their clinical years to elect work at various other hospitals in the same or nearby communities.

The overall aim of these proposals is to make generally available to the public the combined advantages of private practice and of academic medicine.

Because a significant fraction of the cost of this plan for statewide clinical education could probably be financed by existing federal programs, the cost to the tax payers of Alabama would probably be less than that of developing a single large new medical school.

Since the suggested program would bring health and economic benefits to all sections of the state, it would minimize those political and sectional controversies that have so often in the past plagued and hampered the development of new medical schools.

The suggested plan would, if adopted, lead the profession and the public to regard medical and paramedical education as a function, not of one or two communities only, but of the entire state of Alabama. The consequences to be anticipated are increased statewide moral, political and financial support from both public and private sources. The results should be beneficial to physicians, to students and—most important of all—to patients.

Ultimate decisions concerning educational policy should and obviously will be made by the duly constituted authorities of educational institutions while final determination of the financial support to be provided our universities from state funds is the business of our legislative bodies. But it is to be hoped that these decisions will come only after expressions of opinion from all interested parties. One such party is the general public, the "consumers" of medical care. Another is the medical profession, the "producers" of medical care. Since the general public is not well informed concerning the complexities of medical education and since our unique state law places a large responsibility for all health matters on the physicians, it will be only natural for the public to follow the lead of the profession. Our obligation is to take a strong stand for education of high quality and to oppose any steps that threaten that quality. But within this limitation we should support the obviously and urgently needed quantitative expansion.

Our shortage of health personnel is not limited to physicians. The deficiency in nurses and in other paramedical personnel is also very large. Suggestions toward the most effective procedures for overcoming these deficits will be offered in a forthcoming manuscript to be submitted to this *Journal.*

McNulty Keynotes Institute On Nursing Service Utilization

Matthew F. McNulty, Jr., Dean of the University of Alabama in Birmingham's School of Health Services Administration, keynoted an institute on Utilization of Nursing Service Personnel on February 23 in Atlanta, Georgia. The institute was jointly sponsored by the Georgia Hospital Association and the Georgia State Nurses Association.

The theme of the program was maximum utilization of nursing personnel in the hospital in order to provide quality nursing care. Emphasis was given to the organization of nursing departments to provide quality patient care most efficiently and economically.

Dean McNulty, on leave of absence from the School of Health Services Administration, serves as Director of the Council of Teaching Hospitals and Associate Director of the Association of American Medical Colleges in Washington, D. C.

Children's Hospital Additions to Boost Pediatric Service, Education, Research

New additions for Children's Hospital will mean expansion of facilities for patient care, education, and research programs, according to Dr. Harry Shirkey, director of the Hospital and chief-of-staff for University of Alabama Medical Center programs at Children's. The construction, which will add 50 per cent more beds (for a total of 182), a new research floor above the education building, and teaching space on every floor, will be underway next spring. Other facilities will include an intensive care unit, and expanded recovery room, emergency, and admitting areas.

In describing the evolution of Children's Hospital, Dr. Shirkey said the old building, located at 7th Avenue and 30th Street, South, was the foundation for "the fine pediatric service, research, and training center which now exists."

"It was through the foresight of Children's board of trustees and many of the city's leading pediatricians that the hospital was moved to its present splendid building within the Medical Center, and subsequently allied to the teaching programs of the institution. We all feel that an environment which includes research and teaching is conducive to the best patient care," Dr. Shirkey said.

The Hospital is controlled and operated by the board of directors of Children's Hospital, and its operation is partially supported by the United Appeal. The teaching, research, and related patient care programs in pediatrics are under the direction of Dr. Herschel Bentley, professor and chairman of pediatrics of the Medical College of Alabama and pediatrician-in-chief of both Children's Hospital and University Hospital.

Children's Hospital has long provided a variety of services, some of which have always been connected with the Medical Center. Dental care and outpatient services supported by the United Appeal, have been offered by Children's Hospital for a number of years. At the present time, a complete and comprehensive inpatient and outpatient program for low-income families is now provided at the hospital, utilizing United Appeal funds as a source of matching money for grants to the University.

As the character of Children's evolves, not



The Children's Hospital, Birmingham

only toward better patient care, but to an exemplary research and training facility, its services will be even more valuable to the community and to "generations of children to come," Dr. Shirkey pointed out.

"For example, the types of cases now admitted to the hospital have changed," Dr. Shirkey said. "As antibiotics and vaccines were developed, the need to hospitalize victims of such diseases as pneumonia, measles, and flu decreased. Fortunately, many of these patients can be treated at home. We are now admitting many more surgical patients. Therefore our association with Dr. John Kirklin, chairman of the Medical Center's Department of Surgery, and appointment of Dr. Luther Longino, noted pediatric surgeon, are of vital importance to our patient care program. The involvement of the Department of Surgery will enhance the fine surgical programs now under the direction of Dr. Hiliary Henderson."

Officials of Children's Hospital pointed out that affiliation with the University has given Children's access to specialists in many areas, such as virology, neurology, ophthalmology, dermatology and to the surgical sub-specialties—ear, nose and throat, orthopedics, urology—many of which are available only at large medical centers.

Of the educational programs, Dr. Bentley noted that both graduate and undergraduate training programs are expanding in breadth and strength. While teaching programs have existed at the hospital for some time, particularly with respect to pediatric nursing, they are now a much more significant part of Children's programs.

A harbinger of expanded education and research programs, Children's Hospital was given one of the first endowed professorships in the Medical Center by the Meyer Foundation. The professorship was recently filled by the appointment of Dr. Charles Alford, who will have his laboratories at Children's Hospital and will retain his academic appointment at the Medical College of Alabama as professor of pediatrics.



for psychiatric treatment

Peachtree Hospital, located in Atlanta, Georgia, is a complete psychiatric, alcoholic and drug addiction treatment facility accredited by the Joint Commission on Accreditation of Hospitals ☐ The hospital has 65 beds, 47 of which are devoted to the care of psychiatric patients and 18 of which, in a separate area, are for patients with acute cases of chronic alcoholism or drug addiction ☐ Treatment procedures include psychotherapy, electroconvulsive shock therapy, subinsulin coma and chemotherapy ☐ *We will be pleased to provide further information upon request.*

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peachtree hospital

41 PEACHTREE PLACE, N. E. / TELEPHONE 873-5681 / ATLANTA 9, GEORGIA

Mechanism for Handling Calls from Referring Physicians at the Medical College of Alabama

Referring physicians should have a physician (preferably a faculty member) to accept and respond to their calls regarding patients. Recognizing this need, the departments of the Medical College of Alabama have devised the following mechanism to provide prompt attention to these calls:

A. Calls to specific physicians in the Medical College will not be affected. If the specific doctor called is unavailable and the referring physician wishes to talk with another doctor, then the mechanism described below will be used.

B. Calls from referring physicians who do not request a specific physician, and calls for specific physicians who are unavailable will be directed to and handled by the offices of the physicians below:

Medicine:

Internal Medicine:
Dr. Walter B. Frommeyer, Jr.—325-4326
Dr. J. O. Finney, Sr.—325-5187
Dr. Ben Friedman—325-4860

Cardiology:
Dr. Harold Dodge—325-4609

Endocrinology & Metabolism:
Dr. James Pittman—324-6581, Ext. 303

Gastroenterology:
Dr. Basil Hirschowitz—325-4604

Hematology:
Dr. William J. Hammack—324-6581, Ext. 361

Nephrology:
Dr. Allan G. Ramsay—325-4629

Neurology:
Dr. Samuel C. Little—325-4871

Nutrition:
Dr. Charles Butterworth—325-4710

Pulmonary Diseases:
Dr. Ben Branscomb—325-4731

Rheumatology:
Dr. Howard Holley—325-4303

OB-Gyn:
Dr. W. Nicholson Jones—325-4757

Ophthalmology:
Dr. Stephen J. Kelly—325-4330
Dr. Charles P. Grant

Pathology:
Dr. Charles Lupton—325-4303

Clinical Pathology:
Dr. Jon V. Straumfjord—325-4402

Pediatrics:
Dr. Herschel P. Bentley—325-4461

Psychiatric Inpatient Service:
Chief Resident—325-5151
Dr. Nuckols, Chief—325-5164
Emergency (nights & weekends)—325-5105

Psychiatric Outpatient Service:
Dr. George Turner—325-4658
Emergency (nights & weekends)—325-5105

Physical Medicine & Rehabilitation:
Dr. William Fleming—325-4131

Radiology:
Dr. Robert E. Roth—325-4652

Surgery:
General & Cardiovascular Surgery:
Dr. John W. Kirklin—325-5167

Neurosurgery:
Dr. J. Garber Galbraith—325-4654

Orthopedics:
Dr. Chestley Yelton—325-4677

Urology:
Dr. Sheridan W. Shirley—325-4933

Referring physicians who are unable to reach someone to handle their calls through the listed mechanism should call Dr. J. O. Finney, Sr., at 325-5187. Dr. Finney will assist them in getting prompt and proper disposition made of their calls.

The switchboard operators are aware of this mechanism and will assist callers who dial in to the switchboard in getting to the proper parties. It is our hope that this mechanism will provide better and more efficient communications between the referring physicians of this region and the faculty of the Medical College of Alabama.

Report of Meeting on Emergency Medical Services

L. C. Hamrick, M. D.

Fairfield, Alabama

The American Medical Association held meetings of national scope on Emergency Medical Services last year and again this year. A summary and recommendations from the meeting last year were published in the May and September 1967 issues of our State Journal. The purpose of this report is to bring you up to date and to brief you on the most recent meeting held in San Francisco.

As an introduction, emphasis of certain data, some or all of which may be familiar to you follows:

It is estimated that some 50,000,000 visits are made to hospital emergency rooms each year. While many of these visits may well not be bona fide emergency visits, you must agree that this figure is staggering. Even more staggering is a break down of figures on accidental injuries, disabling injuries, and deaths. Some of these include:

1. Accidents are the chief cause of death in the age group one to 37.

2. Injuries from motor vehicle accidents total 3,500,000 annually.

3. Well over 100,000 accidental deaths occur in the United States each year (in 1965 there were 107,000 and of these 49,000 were motor vehicle, 28,500 were home accidents, and 14,100 occurred at work.

4. Motor vehicle accident deaths jump significantly higher each year—about three per cent annually. To emphasize this, 10,000 more deaths from motor vehicle accidents occurred in 1965 than in 1955.

5. Seventy per cent of these motor vehicle deaths occur in rural areas and in communities with a population of less than 2,500. One third of these are non-residents of the area.

6. Most serious motor vehicle accidents occur at "off hours."

7. Forty-nine per cent of fatalities from motor vehicle accidents occur within the first hour following the accident.

8. A medical emergency carried more than ten miles has a ten per cent greater chance of dying.

9. It is estimated that some 20,000 victims of automobile accidents die needlessly each year because of inadequacies in our emergency medical services.

Other figures which include all types of injuries are equally alarming.

The total number of injuries treated at home, in doctor's offices, and in outpatient clinic and emergency departments is unknown. However, in one year, 1965, the number was estimated to be 52,000,000 and of over 10,500,000 disabling injuries occurring, 400,000 resulted in some degree of permanent impairment.

Many of the 52,000,000 injured were treated at home but most were treated in doctor's offices, outpatient, and emergency departments. Of these, more than 2,000,000 were hospitalized using 65,000 hospital beds and 22,000,000 hospital days.

The accident costs for the year 1965 totalled about 18 billion dollars. Medical expenses

* P—Physician
P. H.—Public Health
L—Lay

Dr. Hamrick attended the AMA meeting on Emergency Medical Services in San Francisco Jan. 18-20, 1968. This report to the membership is in compliance with a new policy directing that representatives of MASA to official meetings make a written report to be published in the Journal.

amounted to 1.8 billion, or ten per cent of the total. Loss of wages, administrative costs, property loss and indirect costs make up the remainder.

To substantiate that our own state is proportionately representative of the above figures, you need only to see that in the year 1966, 2,444 (1,664 white, and 780 negro), accidental deaths occurred in our State.

While accidents may be one of the most dramatic and obvious forms of medical emergencies, they do not alone constitute the major problems faced in providing emergency medical services. One has only to consider the hundreds of thousands of acute myocardial infarction or acute respiratory insufficiency to realize this.

With realization of the dramatic increase of emergency cases and the growing problems they present, there has been an upsurge of concern from many quarters over the country including medical and allied services, government, and the laity. The American Medical Association recognizing this area of concern has placed itself in the spearhead position of this movement to upgrade emergency medical services. The importance of this is evidenced by the meetings of national scope sponsored last year and again this year by the A. M. A., and by the action, last November, of the A. M. A. Board of Trustees in the elevation of the committee on Emergency Medical Service to commission status. In effecting the change of the committee to commission change, the following quotation was made:

". . . to serve the needs and interests of the American people with the cooperative efforts of national organizations involved in emergency medical services; by identifying, coordinating and aiding in the implementation of programs of education, manpower, planning, standards, organization, and research within a total framework of compre-

(Continued on Page 1102)

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A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

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"Upper respiratory infection! I thought everything was a 'virus' these days?"

Some U.R.I. patients are more miserable than others.

That's why we make Novahistine® in two different tablet formulations.

And let you control the dosage.

With Novahistine LP tablets and Novahistine Singlet™ tablets you have the range and flexibility of decongestant dosage that lets you prescribe for the needs of the individual patient.

Novahistine LP tablets are most useful for relief of nasal congestion in patients without pain or fever.

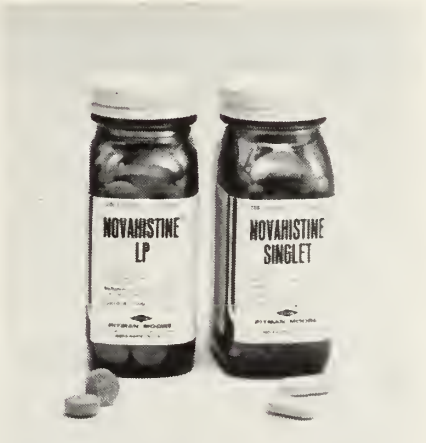
Novahistine Singlet tablets, which provide analgesic-antipyretic effect, as well as decongestant action, are indicated for upper respiratory infections accompanied by pain, aches and fever.

Whether you prescribe Novahistine LP or Novahistine Singlet, a total daily dose of 3 or 4 tablets will usually provide effective, continuous relief.

Use cautiously in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

Each Novahistine LP tablet contains phenylephrine hydrochloride, 25 mg.; and chlorpheniramine maleate, 4 mg.

Each Novahistine Singlet tablet contains phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.; and acetaminophen, 500 mg.



DOW PITMAN-MOORE DIVISION OF THE DOW CHEMICAL COMPANY, INDIANAPOLIS

(Continued from Page 1099)

hensive and quality directed emergency medical care."

To further emphasize the varied interest in this problem, a look at the attendance of the two national meetings, previously referred to, is of importance. Attendance at the meeting held a year ago was primarily limited to physicians, with some 250 attending. The meeting held in January of this year was an open meeting attended by some 450 people with only 40 per cent being physicians. The gravity of the concern is further seen in various representative statements by conference participants* at the latter meeting.

"Very few states or localities have adequate facilities for providing emergency medical services." (P)

"Missionaries are needed to carry the need to the community level and efforts should lead to a community council on emergency medical services." (P)

"Our present system is out dated and inadequate. Some areas are not as weak as others yet the whole module of emergency medical service is as weak as its weakest component." (P)

"The entire community must participate in providing emergency medical service and the physician must lead." (P)

"Paying patients alone cannot pay for all the emergency medical services." (L)

"It must be a community project—the combined effort of many groups." (L)

"There must be communication between interested groups—many do not know what others are doing." (P) (L)

"Problems are not faced up to until we are embarrassed or a crisis occurs and then the problem facing us for years is dealt with in haste." (L)

"We must move from words to action." (P) (L)

"Don't wait until you're hit over the head and forced into decisions not of your desire." (P. H.)

"Demands by the public from without and not initiative from staffs within have brought about changes for improvement." (P. H.)

"When the federal government steps in and tells us how we must provide emergency medical service, we will have again lost more of our individualism." (P)

Suggestions for community action on emergency medical service provided by the A. M. A. are attached to this report. They represent much of what was covered in the San Francisco meeting. It is recommended that these be read carefully by each of you. In these suggestions will be found further insight into the magnitude of this problem of emergency medical service.

The question of the financing of such a program is probably of concern to all of you. In this respect, however, there are no ready answers and no ready cash. For the most part, the answers will have to come from the local community or area and the problems in financing will persist until the community takes definite action to coordinate all activities in this field.

Some suggestions which bear exploring are:

1. "402" funds—these are funds made available through the Highway Safety Act of 1966. These are grant in aid programs in the form of matching funds used as a lever to get states to increase highway safety. These funds are made available through the governor of those states complying with certain standards set up by the National Highway Safety Bureau. Monies from this fund can be used to help finance ambulance and emergency medical services. The budgeted amount for 1968 is 23.9 million dollars for the entire country. Seventy-five per cent is allocated on the basis of population and 25 per cent by special formula.

2. Civil defense funds—the communications network for civil defense may be put to every day use but the need for operating this network for every day use is far beyond the resources of civil defense funds.

3. National guard and other military helicopters may be used to some extent in transporting emergency victims.

4. Civic clubs have expressed interest in promoting educational aspects of the needs in emergency medical services and in actually providing some of these.

Yet when one gets down to the major part of financing—the buck stops at the local area or community.

In summary, the case has been made that while we have made unparalled progress in the field of medicine, we have outgrown our capability of adequately meeting our needs in emergency medical services and that we must strive to see that we and our communities organize and provide for all the essential components—first aid, transportation, communication, and facilities—which go into the make up of not only acceptable, but exemplary emergency medical service.

Community Action on Emergency Medical Services

It has been estimated that 20,000 victims of automobile and other accidents die needlessly each year because of inadequacies in our emergency medical services. Furthermore, fatalities and injuries are increasing rapidly each year, and concerted action to halt this unnecessary carnage is vital.

In response to the dramatic increase in emergency cases, the American Medical Association's Commission on Emergency Medical Services perceives the promotion of community-wide action on Emergency Medical Services as essential to EMS up-grading and improvement.

Fragmentation of efforts, fragmentation of services, lack of coordination among involved parties, and, in many instances, public, private, and professional apathy account for many of the shortcomings in emergency services. A community action program on EMS is seen as essential in order to evaluate resources and needs; to facilitate problem identification; to achieve a community consensus on objectives and priorities; and to promote coordinated planning, organization, and operation of a total emergency services system.

The "Suggestions" that follow are offered as an aid in the formation of community action programs on EMS. Though stated concretely, they are nevertheless only *guides* for the community; particular needs will dictate their implementation or modification. Most important is that the plan a community action group determines for its area be compatible with any existing program planning for health facilities and services for that community.

On the community level, a community (medical service area) must develop an organizational structure which is able to coordinate all the components of the emergency medical services system in that geographic area. Such an organizational structure must assure the community's citizens:

That they are being provided with the most up-to-date methods of first aid and emergency care which can be given by a layman, an ambulance attendant, a policeman, or a physician.

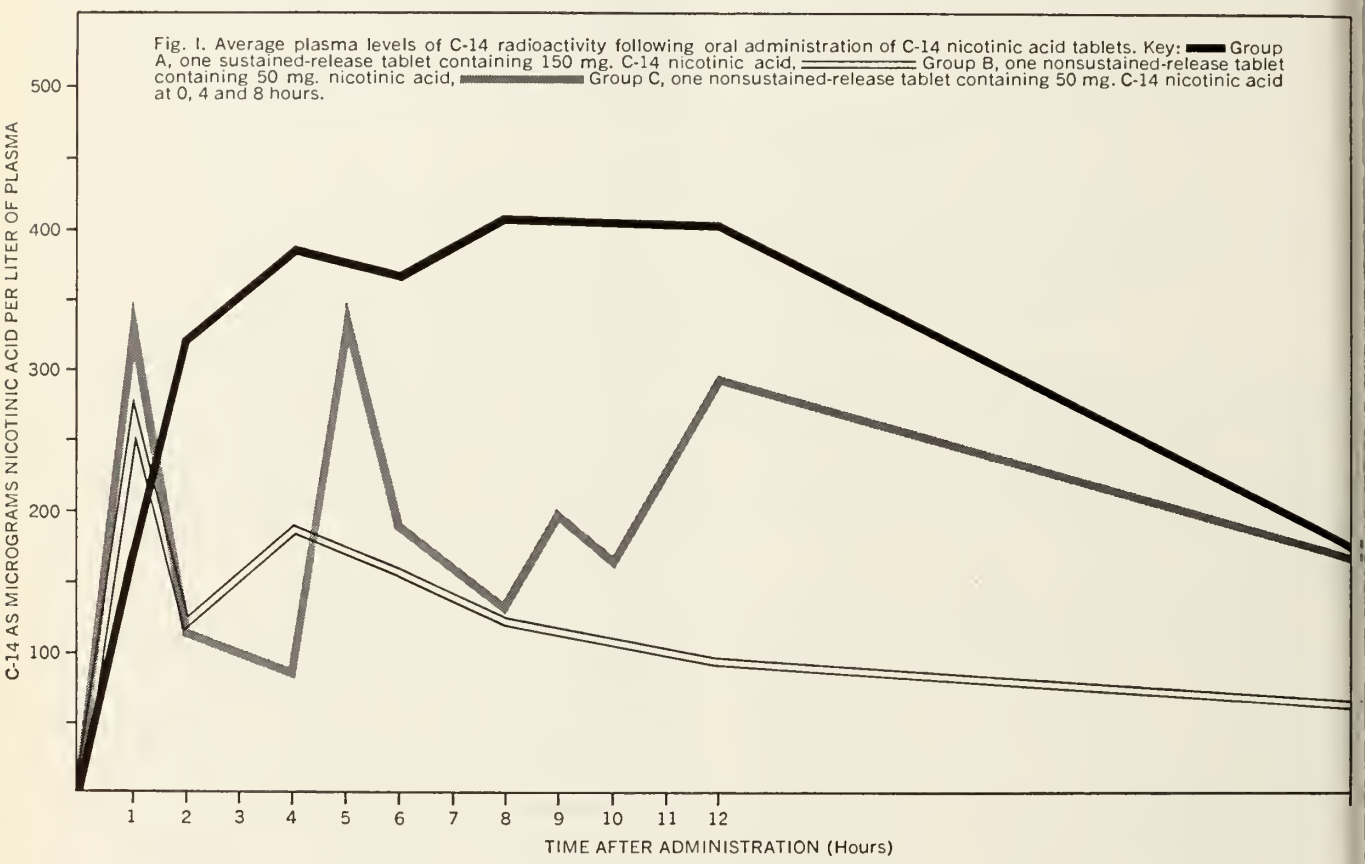
That the vehicles transporting them will be the best staffed and best equipped attainable.

That emergency communications will assure them timely response when they are ill or injured, both in discovery and treatment.

And, finally, that the personnel and equip-

(Continued on Page 1106)

Sustained circulatory, respirator and cerebral stimulation for th





(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated

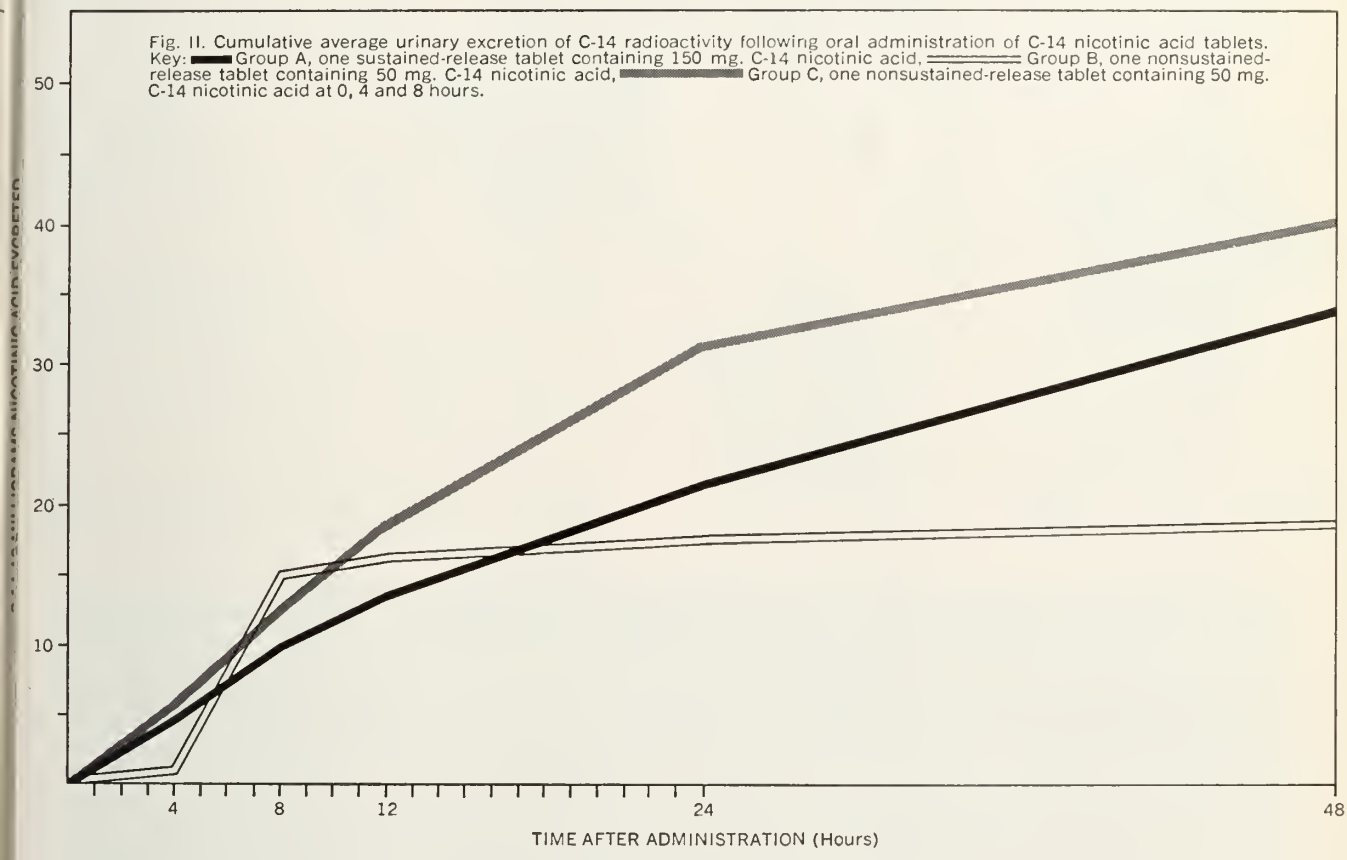


Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═══ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

ss confused and moody. Personal care, memory, motional stability, social attention improve. Fatigue, pathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will ermit your patients to enjoy the benefits of time-rolonged nicotinic acid/pentylenetetrazol therapy, t an economical price. Dosage is only one tablet every 2 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

(Continued from Page 1103)

ment in their emergency facilities assure them the highest quality medical care.

The emergency medical services system must be designed to encompass emergencies of any magnitude, from the single traffic casualty or cardiac arrest to the mass casualty incident. The system capable of handling day-to-day emergencies is simply augmented rapidly in disaster situations.

All organizations and agencies which can contribute to the emergency system should be represented on the coordinating body. The following especially should be represented for most communities: medical society, local health departments, area hospital administrators, fire and police personnel, traffic or highway safety groups, providers of ambulance services, public health agencies, health planning agencies, local government, voluntary health organizations, and representative civic and service club bodies.

There are many others, depending upon the community, such as a representative of the school board, perhaps, to discuss teaching first aid courses on a basis similar to driver's education; perhaps a representative of local industry or industries who should be vitally concerned about the health and welfare of employees; an insurance executive; or a member of the press.

It should be pointed out here that geographic boundaries for the coordinating organization may be metropolitan, county-wide, or even regional ones depending upon population densities.

The most salient principle to be recognized in the organization of a community action program is the utilization of existing efforts, agencies, facilities, and services. Where area-wide planning councils are in existence, community action programs may work with the existing comprehensive health planning program. Groups and agencies other than area-wide planning councils, e.g., Committees on Trauma, Disaster Medical Care, or Automotive Safety have long directed efforts toward the improvement of emergency care. All current endeavors should be appraised in view of the need for organized action.

Evaluation of present emergency system. The organization's work should begin by evaluating the present emergency medical services in the community it serves. This may very well be the most important element if the program is to be successful.

The U. S. Public Health Service has available guides for analyzing a community's emergency medical services.[1] One check-list asks detailed questions on ambulance services including organization, area served, services performed, personnel and their training, vehicles used, types of communications utilized, relationships with hospital facilities, records kept, financing, types of calls, and general evaluation.

A similar check-list is available for emergency facilities and their organization, and analyzes function, administrative responsibility, staffing, equipment and supplies, disaster planning, and liaison with ambulance services. In some communities, such an evaluation of present conditions would take only weeks; for many it might take months. Regardless of time, it is the essential first step.

Next the organization must turn to what is immediately available to help correct those deficiencies the community evaluation turned up. Among the problems to be considered are these:

What are the best training programs for teaching youngsters and adults in the community basic first aid?

What standards should be adopted regarding ambulance services?

What are the best communication systems available?

What equipment is necessary for hospital emergency facilities?

(Continued on Page 1109)

A Star-studded Meeting - - -

THE MEDICAL ASSOCIATION of the STATE OF ALABAMA

107th ANNUAL MEETING
April 18-19-20, 1968

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107th
Annual Session
BIRMINGHAM
April 18-19-20, 1968

MAIL NOW!

(Continued from Page 1106)

What standards of care should be required?

Where will manpower be found to staff and direct all components of the EMS system? These are some of the questions that must be asked and studied.

General recommendations. Abridged recommendations from AMA's 1967 Conference on Emergency Medical Services give us some general guidelines on the four phases of the emergency system.[2]

I. *First Aid*

1. All segments of the public should be trained in Red Cross standard first aid, or equivalent.
 a. Training should be part of the curriculum of elementary and secondary schools.
 b. First aid training should be encouraged for adult programs.
 c. Management and labor should include Red Cross standards as part of its industrial safety training program.
2. Review of first aid, the fundamentals of emergency medical treatment and the appropriate role of allied health professionals should be an early part of medical, dental and nursing school curricula.
3. Advanced first aid training should be required for all police and fire personnel.
4. All ambulance attendants should be given a minimum of advanced first aid training and additional training in specific emergency medical care. Annual refresher courses should be given ambulance attendants.
5. Local medical societies should offer assistance and advice to local Red Cross chapters, police and fire academies and any other parties involved in teaching first aid.

II. *Communications*

1. A study should be made of available information on existing emergency communication systems relating to urban and rural areas. Information should include:
 a. Data on cost
 b. Distance
 c. Installation
 d. Controls
 e. Equipment
 f. Periodic investigation
2. Emergency communications should include but not be limited to the following 24-hour capability:
 a. To provide central dispatching
 b. To direct 2-way communications between emergency vehicles and emergency facilities
 c. To have flexibility to handle emergencies of any magnitude
 d. To provide 2-way communication between physicians and emergency facilities
 e. To provide 2-way communications with law enforcement agencies and other agencies charged with emergency services.

III. *Transportation*

1. The minimum equipment for ambulances as specified by the American College of Surgeons should be accepted with certain additions including antidotes for poison control.
2. Every ambulance should have at least two attendants available for

(Continued on Page 1110)



(Continued from Page 1109)

on-the-scene care and care enroute to the hospital.

3. Specific courses in defensive driving should be required for all personnel driving emergency vehicles.
4. A model ambulance ordinance should be endorsed and promoted.
5. Occupations of ambulance driver and attendant should be developed to a "career status" to enhance recruitment and stability.
6. Study should be made of the feasibility of helicopter use in transporting the ill and injured both in urban and rural areas.

IV. *Emergency Facilities*

1. The community's emergency departments should be evaluated in terms of facilities, personnel and services—possibly leading to the concept of emergency classification or categorization at a community level based on the type of medical care that can be rendered.

 Standards should be established governing the transfer of patients to other emergency facilities when necessary.
2. New patterns of medical care especially in the emergency department emphasize the need for the use of triage officers in that area to separate the non-urgent patient from the true emergency. Alternative facilities for care of the non-urgent patient should be provided, whether it be in hospital outpatient clinics, group practice clinics, industrial clinics, private physicians' offices, or other.

 The design of emergency departments and services should be such that they could be rapidly augmented for mass casualties.

3. Every emergency department should have a poison control center or immediate access to one operating under the standards of the American Association of Poison Control Centers.
4. More emphasis should be placed on recognition of psychiatric emergencies and the role of the psychiatrist in the emergency department.
5. Emergency department records should become a part of the unit record system of the hospital and evaluated using the same standards employed elsewhere in the hospital.
6. A committee of the hospital medical staff should be responsible for continuous review of the emergency department services — equipment, facilities, procedures and records— so as to assure optimal medical care.

FOOTNOTES

1. Available from the U. S. Public Health Service, Emergency Health Services Branch, Information Clearing House, 7915 Eastern Avenue, Silver Spring, Maryland.

2. Conference proceedings are available from the American Medical Association, Department of Hospitals and Medical Facilities, 535 North Dearborn Street, Chicago, Illinois, 60610.

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See Page 1107-1108

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Recommendation of the Public Health Service Advisory Committee on Immunization Practices

The Public Health Service Advisory Committee on Immunization Practices meeting on May 26, 1967, issued the following recommendation on poliomyelitis vaccines, a revision of the initial recommendation which was released as a supplement to the Poliomyelitis Surveillance Unit Report No. 285, September 1964. (Reprinted from MMWR, Vol. 16, No. 33 Week Ending August 19, 1967.)

POLIOMYELITIS VACCINES

Introduction

Widespread use of poliovirus vaccines has resulted in the virtual elimination of paralytic poliomyelitis in the United States. To insure continued freedom from the disease, it is necessary to pursue regular immunization of all children from early infancy.

Following the introduction of poliovirus vaccine in 1955, paralytic poliomyelitis declined from 18,308 cases in 1954 to a low of 61 cases in 1965. A national survey in September 1966, showed that 70 per cent of all children 1-4 years of age had received at least three doses of oral poliovirus vaccine (OPV)*, inactivated poliovirus vaccine (IPV)**, or both. Approximately 90 per cent of all children 5 years old and older had been adequately vaccinated.

Nevertheless, low immunization rates can still be found in some population groups, both urban and rural. In 1966, 108 cases of paralytic poliomyelitis were reported in the United States and Puerto Rico, reversing the downward national trend. The majority of the 1966 cases occurred in unimmunized children less than 5 years of age in south Texas. These cases illustrate the possibility of outbreaks where incomplete immunization exists.

With widespread use of poliovirus vaccine, laboratory surveillance of enteroviruses indicates that circulation of wild polioviruses has diminished markedly. It can be assumed that inapparent infections with wild strains will no longer contribute significantly to maintaining immunity in the general population. Therefore, it is essential not only to continue active immunization programs for infants and children but also to make special efforts to raise the low immunization rates existing in certain segments of the population. Identification of population groups requiring special immunization programs should be undertaken through surveys, both of immunization history and serologic status.

Poliovirus Vaccines

From the introduction of IPV in 1955 until the live attenuated vaccines became widely used in 1962, more than 400 million doses of IPV were distributed in the United States. Primary immunization with IPV plus regular booster doses provided a high degree of protection against paralytic disease.

Monovalent OPV, types 1, 2, and 3, have been widely used in the United States since 1961-62. Trivalent OPV was introduced in 1963.

OPV is more widely used than IPV in this

* The official names of the products in use are: 1) Poliovirus Vaccine, Live, Oral, Type 1; 2) Poliovirus Vaccine, Live, Oral, Type 2; 3) Poliovirus Vaccine, Live, Oral, Type 3; 4) Poliovirus Vaccine, Live, Oral, Trivalent.

** The official name of the product in use is: Poliomyelitis Vaccine.

country because it is easier to administer and produces an immune response which, without regular booster doses, appears to be similar to immunity induced by natural poliovirus infection. Trivalent OPV has largely replaced the monovalent forms because of simplicity of scheduling and record-keeping.

A primary series of trivalent OPV, consisting of three adequately spaced doses, will produce an immune response to all poliovirus types in well over 90 per cent of the recipients. Using the immunization schedule recommended in this report, possible interference with immunity produced by wild enteroviruses is minimized. Immunization may, therefore, begin in any season.

For community protection during an epidemic, it is better to immunize against the prevalent poliovirus type. For this purpose, type-specific monovalent OPV is preferable to trivalent OPV.

Very rarely, cases of paralytic poliomyelitis have occurred in recipients of OPV or their close contacts within 30 days of vaccine feeding. Careful analysis indicates a ratio of no more than one case of "vaccine-associated" paralytic disease for every three million doses of OPV administered.

Vaccine Usage

Oral Poliovirus Vaccine (OPV)

Primary Immunization

Trivalent OPV

Infants: The three-dose immunization series should be started at 6 to 12 weeks of age, simultaneously with the first DTP inoculation. The second dose should be given no less than 6 and preferably 8 weeks later. The third dose is an integral part of primary immunization and should be administered 8 to 12 months after the second dose.

Children and Adolescents: In children and adolescents through the level of high school, the primary series should consist of three doses, the first two doses given 6 to 8 weeks apart, and the third, 8 to 12 months after the second. If circumstances do not allow for the optimal interval between the second and third doses, the

(Continued on Page 1116)



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1. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



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Warning: Clinical reports have suggested that there may be a risk of teratogenesis associated with the use of this compound during the first trimester of pregnancy. Unless, in the opinion of the prescribing physician, the potential benefits outweigh the possible risks, Tofrānil should not be used during the first trimester of pregnancy.
Cardiovascular complications, including myocardial infarction and arrhythmias, have occasionally occurred in susceptible individuals. Patients with cardiovascular disease should be given the drug only under careful observation and in low dosage.
Precautions: Since suicide is always a possibility in severely depressed patients and one which may persist until significant remission occurs, such patients should be carefully supervised during early treatment with Tofrānil. Some severely depressed patients may also require hospitalization and/or concomitant electroconvulsive therapy.
Because of its anticholinergic effect, caution should be observed in prescribing Tofrānil for patients with increased intraocular pressure.
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A lag in therapeutic response, lasting from a few days to a few weeks, should be expected. When dosage recommendations are already being followed, increasing the dosage does not normally shorten this latency period and may increase the incidence of adverse reactions.
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(Continued from Page 1113)

third may be given as early as 6 weeks after the second.

Adults: Routine poliomyelitis immunization for adults residing in the continental United States is not currently necessary because of the extreme unlikelihood of exposure. However, any unimmunized adult who may be at increased risk by virtue of contact with a known case or travel to epidemic or endemic areas should receive trivalent OPV according to the schedule outlined for children and adolescents. Persons employed in hospitals, medical laboratories, and sanitation facilities might also be considered as having an increased risk, especially if poliomyelitis is occurring in the area.

Pregnancy of itself is not an indication for vaccine administration, nor is it a contraindication when immunization is required.

Monovalent OPV

An alternative immunization procedure for infants, children, and adolescents is to give the separate monovalent OPV types at intervals of 6 to 8 weeks. The recommended sequence of types is 2, 1, 3. A fourth OPV dose, but of trivalent vaccine, should be given 8 to 12 months after the third dose of monovalent OPV. The special role of monovalent OPV in epidemic control is discussed below.

Follow-up Doses

School Entrance

On entering elementary school, all children who have completed the primary OPV series should be given a single follow-up dose of trivalent OPV. All others should complete the primary series.

Routine "Boosters"

On the basis of current information, there is no indication for regular or routine "booster" doses of OPV.

Increased Risk

A single dose of trivalent OPV may be

administered to anyone who has completed the full primary series described above and has an increased risk of exposure by virtue of contact with a known outbreak, travel to epidemic or endemic areas, or occupation. However, the need for such an additional dose has not been established. If there is uncertainty about the adequacy of previous immunization, a single dose of trivalent OPV should be given.

Inactivated Poliovirus Vaccine (IPV)

Primary Immunization

All Ages: Four parenteral doses should be given, three at approximately monthly intervals and the fourth, a reinforcing dose, 6 to 12 months after the third. This schedule may be integrated with DTP immunization beginning at 6 to 12 weeks of age.

Booster Immunization

Single booster doses every 2 to 3 years have been recommended to insure adequate levels of antibody. The need for IPV boosters could be obviated by a full course of OPV. For individuals at particular risk as described previously, at least one dose of trivalent OPV, and preferably a full primary series, is recommended.

Epidemic Control*

For operational purposes in the United States, an "epidemic" of poliomyelitis is now defined as two or more cases caused by the same type virus during a 4-week period in a circumscribed population such as that of a city, county, or metropolitan area. An epidemic of poliomyelitis can be controlled by an emergency monovalent OPV immunization program. As soon as possible, the type of poliovirus responsible should be determined and the epidemic area defined. Within the epidemic area, all persons over 6 weeks of

* For epidemic control, monovalent OPV types 1 and 3 are available from the National Communicable Disease Center on request of the State Health Department.



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age who are not completely immunized or whose immunization status is uncertain should promptly receive one dose of type-specific monovalent OPV.

Simultaneous Administration of Live Virus Vaccines

Data on simultaneous administration of live virus vaccines are not sufficient to develop comprehensive recommendations, but there are obvious practical advantages to combining vaccines, and investigations are underway which should help to define optimal practices. When combined administration is indicated, available data do not suggest that undesirable responses will result. The following comment presents current attitudes toward scheduling vaccination with three major live virus vaccines—polio, measles, and smallpox.

It has been generally recommended that immunizations with live virus vaccines be separated by at least one month whenever possible. The rationale for this recommendation is the theory that superimposed reactions and diminished antibody responses might result if two or more live virus vaccines were given simultaneously. Ideally, the initial doses of oral poliovirus vaccine should have been given before a child reaches one year, the age for giving live attenuated measles virus vaccine. Administration of polio and measles antigens should be separated by at least one month. It is likewise desirable to separate measles and smallpox vaccinations by one or more months because both of these antigens may produce febrile reactions.

When, however, immunization program effectiveness is hindered or when the threat of concurrent exposures exists, the relevant live virus vaccines should be given at the same time. Observations do not indicate that this will cause a significant increase in adverse reactions or depressed antibody responses to either antigen.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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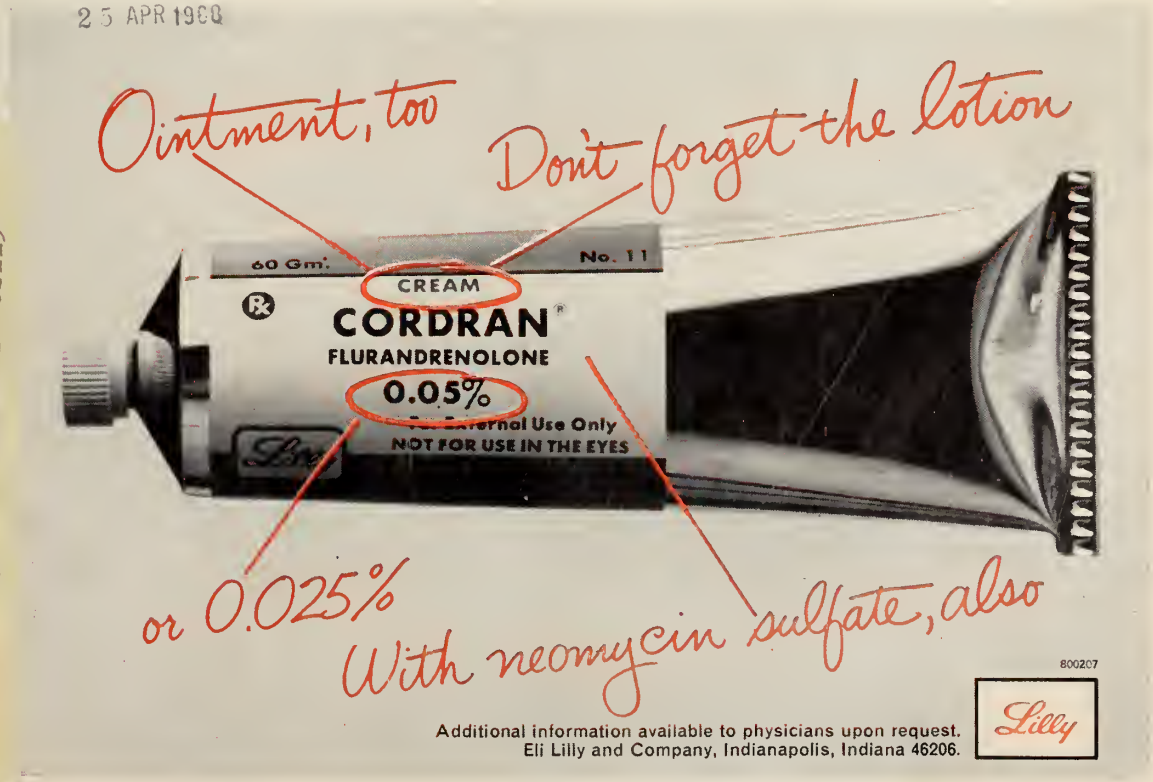
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The Diagnosis of Diabetes Mellitus 1161

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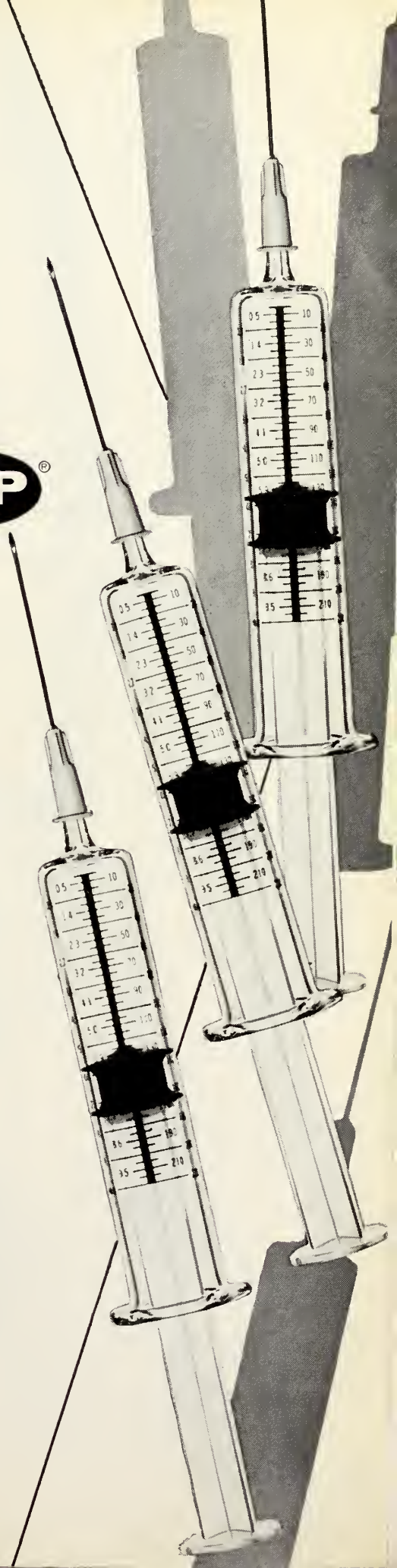
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Medical Association of the State of Alabama

Volume 37 • April, 1968 • No. 10

Office of Publication
19 So. Jackson St. Montgomery, Ala. 36104
Subscription Price $5.00 Per Year
$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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Precautions—Overgrowth of nonsusceptible organisms may occure. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity: onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth— dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

In the treatment of syphilis a dosage schedule of a total of 12 to 18 Gm. given in equally divided doses over a period of 10 to 15 days should be followed. Close follow-up observation of the patient is recommended, including appropriate laboratory tests, since demethylchlortetracycline has not had adequate evaluation in all stages of syphilis. Spinal fluid examination should be included as part of this follow-up.

Acute gonococcal anterior urethritis in males has been treated effectively with a single dose of 600-900 mg. of DECLOMYCIN Demethylchlortetracycline. Individuals unable to tolerate large single doses due to gastrointestinal side effects may be treated with 150 mg. every 6 hours for a minimum of 4 doses or 300 mg. every 12 hours for a minimum of 2 doses. Females should be treated with a dosage of 150 mg. every 6 hours or 300 mg. every 12 hours until a cure is effected.

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President's Page

This is our "Swan Song."

This is our twelfth and final President's Page. We wonder how many of you have had to write a similar message each month for a publication such as our Journal. We often wondered what would be of interest, what we should write about, and most important of all—what our members would read.

Our tenure in office has been a very busy, stimulating and interesting one. We are most appreciative of the full co-operation that has been received from all segments of the Association. We are grateful for the assistance that has been given, and we have enjoyed this year. However, we shall be happy to turn over the reins of the Association to our most able and competent successor.

We are pleased to remind each member of our Association that we are indeed fortunate in having Mr. L. P. Patterson, Executive Director, Mr. Robert B. Ingram, Associate Executive Director, and their colleagues to operate our central office. In our opinion, we have the finest central office personnel and setup in the Nation. They have been loyal, conscientious and a hard-working group. Without their help we could have done little and we publicly express our deep appreciation and thanks to them.

We would again urge that there be established comprehensive health care and advisory committees either on a county or multi-county basis. If we are to exert leadership in legislative programs that concern the health of our people and the programs of medicine, then the establishment of such committees is imperative.



Dr. E. Bryce Robinson, Jr.

During the year four new committees were activated that we believe are most important in continuing to further the objectives of our Association:

1) Committee on Socio-Economics; 2) Committee on the Medical Aspects of Sports; 3) Committee on the Medical Aspects of Safety; and 4) Interspecialty Council.

We urge again that each of our members become involved in ALAPAC as the eventual salvation of our way of life as physicians as we know it today.

We are indebted to and express our appreciation to Dr. E. L. McCafferty, Jr., Presi-

dent-Elect, for the fine assistance and support he gave during the past year.

We commend the editors and editorial assistants for the improvements they have made during the past year in the *Journal* of the Medical Association of the State of Alabama and the *Alabama M. D.*

Finally, we are most grateful for the great honor and privilege that has been ours by allowing us to serve as President of this wonderful Association. We know that you will give our successor full measure of your support, loyalty and assistance.

E. Bryce Robinson, Jr., M. D.,
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The Woman's Auxiliary

As I write this, my last message to you, I am reminded of an article I read recently concerning a magnificent carpet that was sold in New York City for the amazing sum of $250,000. It measured less than 25 feet by 16 feet, yet contained over 100 delicate shades and hues. Imported from Turkey, it was completed in 1921 after many people had labored over it for years. Two things in this article were most impressive. First, it said that had one man done the work alone it would have taken him 60 years to have completed the task. Second, this masterpiece of beauty was actually made up of 11,877,000 knots.

During the past year your wives have been weaving a masterpiece as they have worked together to accomplish the goals we set before us one year ago. The achievements of the Woman's Auxiliary, like the weaving of the carpet, could not have been accomplished by any one member. It was achieved only with the enthusiasm, co-operation and dedication of every officer, committee chairman and member.

You, too, have had a part in the weaving of this masterpiece. Dr. E. Bryce Robinson, Jr., President of MASA; Dr. John M. Chenault, Dr. William G. Thuss, Sr., Dr. William Noble, Sr., Dr. Ira B. Patton, Jr., and Dr. James C. Guin, Jr., our Advisory Council; Mr. L. P. Patterson, Mr. Robert Ingram, Mrs. Nell Williford and the other fine staff members of the Medical Association Office have given generously of their time and talents and have been a guide and inspiration to us throughout the year.

Each of you who gave so generously the drug samples from your office and who made your contribution to AMA-ERF through the Auxiliary Fund have been a great help to us and we are indeed grateful to you.



Mrs. James C. Guin, Jr.

It is as Sanskrit said, "Yesterday is only a dream, and tomorrow is only a vision, but today well lived makes every yesterday a dream of happiness with every tomorrow a vision of hope." As long as there are physicians and their wives working together, dedicated to the task of improving the image of medicine and making this land of ours a happy and healthy place to live, as has been evidenced during the past year, we need never fear the future for it is indeed the doorway to greatness.

Kay Guin

Mrs. James C. Guin, Jr.

President



Title XIX Funding—A Problem of Earmarking

With the January 1, 1970 deadline for the implementation of Title XIX rapidly approaching, the problem yet to be resolved in Alabama is the financing of this awesome health care program. It is a matter of record that as of March 1 a total of 37 states and territories had implemented Medicaid programs. This fact provokes an obvious question—where did these states turn to secure the huge sums of money to finance their Title XIX program?

To answer this question as it relates to Alabama requires a historical review of the fiscal policies of this state. Many years ago the state of Alabama came to a fork in the road, fiscally speaking. There is reason to believe today that the state took the wrong turn. What happened was simply that the state legislature began to impose specific taxes for specific purposes. This is called earmarking.

Once the state was committed in this direction there was no retreat. With the passing of time, more and more taxes were imposed or increased, all of them earmarked for a specific function of state government. The situation today is little short of critical. More than 80 per cent of all tax dollars collected by the state are earmarked. In this area, Alabama is No. 1 in the nation, with no challenger in sight.

Practically all the major sources of state revenue are earmarked taxes. The sales, use and income taxes—which provide millions annually—are earmarked for education. The state tax on gasoline as well as motor vehicle license fees, which produce more than $100 million a year, must be used only in the construction and maintenance of roads and bridges. Every cent collected from the tax on liquor is earmarked, most of it for welfare purposes. The only un-earmarked taxes in Alabama are those which few people have ever heard of (for example, domestic corporations charter fee, foreign corporations entrance fee, public utilities inspection fee, etc.). They are levies which produce an insignificant amount of revenue.

What this adds up to is that there is simply no available tax source in Alabama which could provide the huge sums of money needed to implement Title XIX.

How does the Alabama fiscal situation differ from those states where a Title XIX program is now being funded? The difference is that there is little or no earmarking in most of these states. Instead, the proceeds of these taxes are accumulated in one large fund from which the legislature appropriates revenue to the various branches of state government. Thus, when the single state agency for Title XIX needed funds for this program it simply petitioned for a bigger piece of the pie rather than for a tax increase. No such pie is in existence in Alabama.

The dark financial picture is made even darker by yet another development. School forces in Alabama are already clamoring for a substantial increase in the state appropriation to education. Efforts in any future legis-

lative session to seek Title XIX funds will encounter stern competition from educators.

It would be easy for one to read this analysis and conclude that the State Board of Health faces a hopeless task in seeking funds for the Title XIX program. The task is a difficult one, but not hopeless. It will be less difficult if all groups who will be involved in the Medicaid program—the providers of services as well as the tens of thousands of recipients—will stand as one in seeking the needed revenue for this program.

If there has ever been a time when unity was needed within the ranks of health care providers, the time is now.

Federal Medical Programs; To The Moon and Back

How many times have you read articles where writers, in an effort to make a point, have converted numbers into distances. For example, we are sure you have read somewhere that if all the cigarettes smoked by Americans in 1967 were laid end to end (or butt to butt), they would stretch from Slocomb to Saturn and back again. And we are sure there was an asterisk accompanying these statistics, said asterisk pointing out that the computations didn't take into consideration the cigarette which is a silly millimeter longer.

Forgive us, please, but we have come up with a similar set of statistics as they relate to the involvement of the federal government in health and medical care. Without the help of computers, but instead using only a dull pencil and a scratch pad we have made the following statistical conclusions:

If all the money the federal government is to spend in health-medical care in 1968 was converted into one dollar bills, and these bills were laid end to end, they would come close to making four roundtrips from the earth to the moon. We could, no doubt, make it all the way back from that fourth trip by adding just a little platformate.

To be a little more precise. this imagined ribbon of one dollar bills would extend a distance of 1,343,391 miles compared with the mileage of four roundtrips to the moon of 1,433,130 miles.

Pardoning a very subtle pun, these lunatic figures are based on a recent AMA report which itemized federal expenditures contemplated for fiscal 1968 in the health-medical field. This report indicated a total of $14,186,210,392 (that is billions) will be spent during the year in this field. This is a hefty 20 per cent increase over health-medical spending by the federal government in fiscal 1967. It should also be recalled that federal spending under Title XIX has just begun, and eventually this program will put all others to shame from a cost standpoint.

More alarming than the expenditures, however, is the fact the federal funds means federal involvement, federal interference, and eventually, federal control.

The doctor in Alabama and elsewhere who continues to operate under the premise that a physician should practice medicine and let the politicians practice politics is riding for a fall. And the vehicle he is riding is a horse and buggy.

Calendar of Annual Meetings

Medical Association of the State of Alabama

1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham



Report on Second United Way Conference

B. B. Wells, M. D.

Birmingham, Alabama

The Second United Way Conference was held in Atlanta, February 13-15, 1968. The meeting brought together representatives from two large national organizations that are concerned with the administration of voluntary (charitable) funds in the health and welfare fields. The organizations are (1) United Community Funds and Councils of America, Inc. (UCFCA) and (2) United Health Foundations (UHF).

Attendants consisted largely of two groups: First, and I believe in largest numbers, were professional staff members of voluntary community health and welfare agencies; second, voluntary participants in large community health programs. A considerable number of the latter were physicians. A third, and very small group, consisted of individuals who, like myself, were present to become informed in reference to the activities, goals, and objectives of the various voluntary bodies. Of some significance, I believe, was the fact that the conference was largely supported by corporate industry, and that industrial and labor leaders were prominently featured on the program. Except for one speech by the Surgeon General of the USPHS and a panel appearance by the Director, Georgia Department of Health, representatives of governmental agencies (local, state or Federal) were conspiciously absent. This seemed a bit strange in view of the fact that a prime concern of the conference was the accelerating involvement of government in the health field, and the broadening interface between voluntary and governmental programs.

The formal presentations of the program were tenderly phrased to emphasize the obvious and give offense to no one. Despite certain valiant community efforts, several of which were presented in detail, there is clearly a great deal of concern about the status, or even the viability of voluntarism in this country. An important committee report makes reference to: ". . . the current widespread desire to reverse the trend toward duplication, over-specialization, competition, excessive fund-raising and administrative costs in the voluntary health field." "Powerful forces . . .," the report continues, "are looking for an end to the community divisive-

(Continued on Page 1133)

Dr. Wells is Director of the Alabama Regional Medical Program. He attended the Second United Way Conference as a representative of the Medical Association of the State of Alabama.

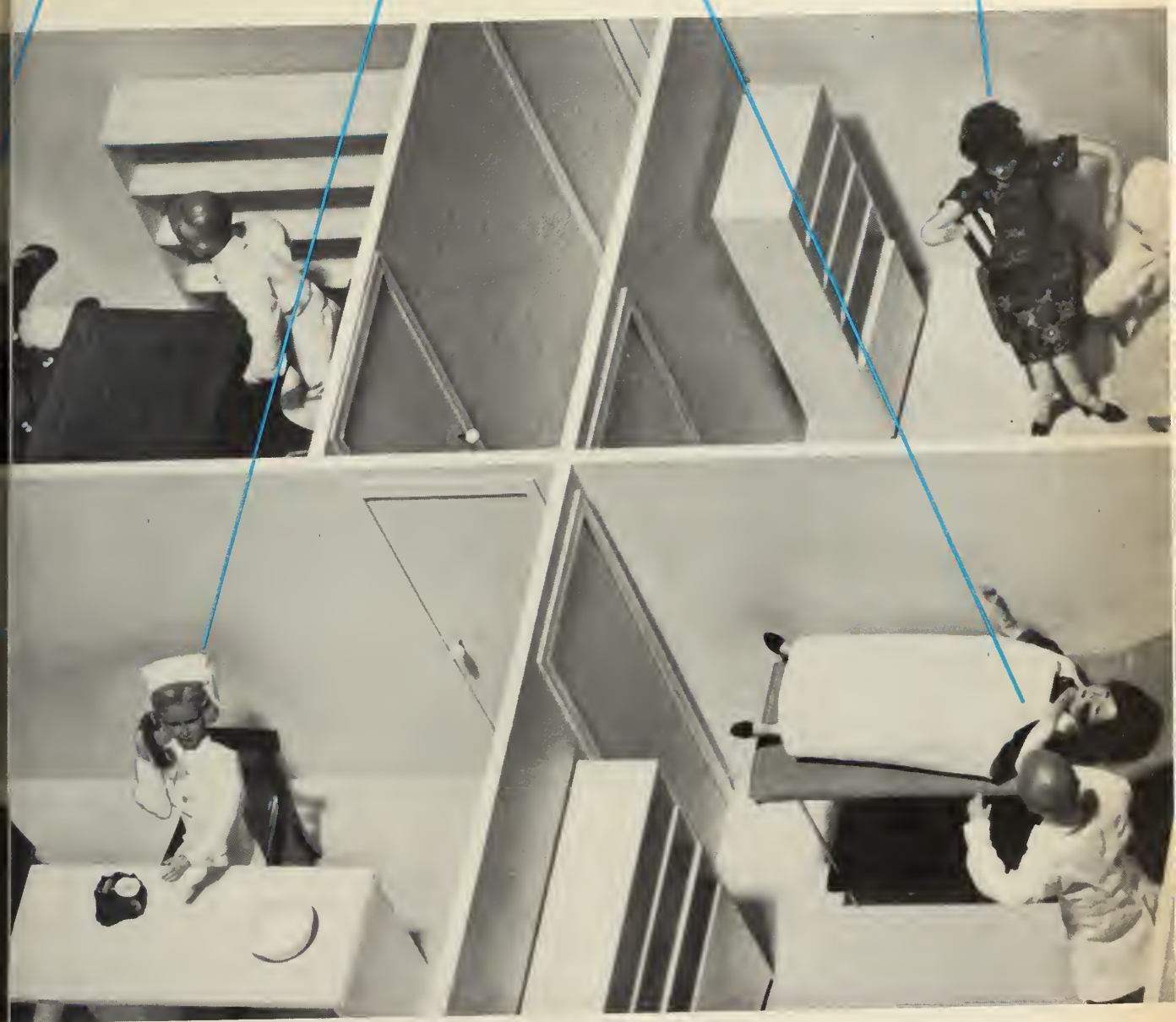
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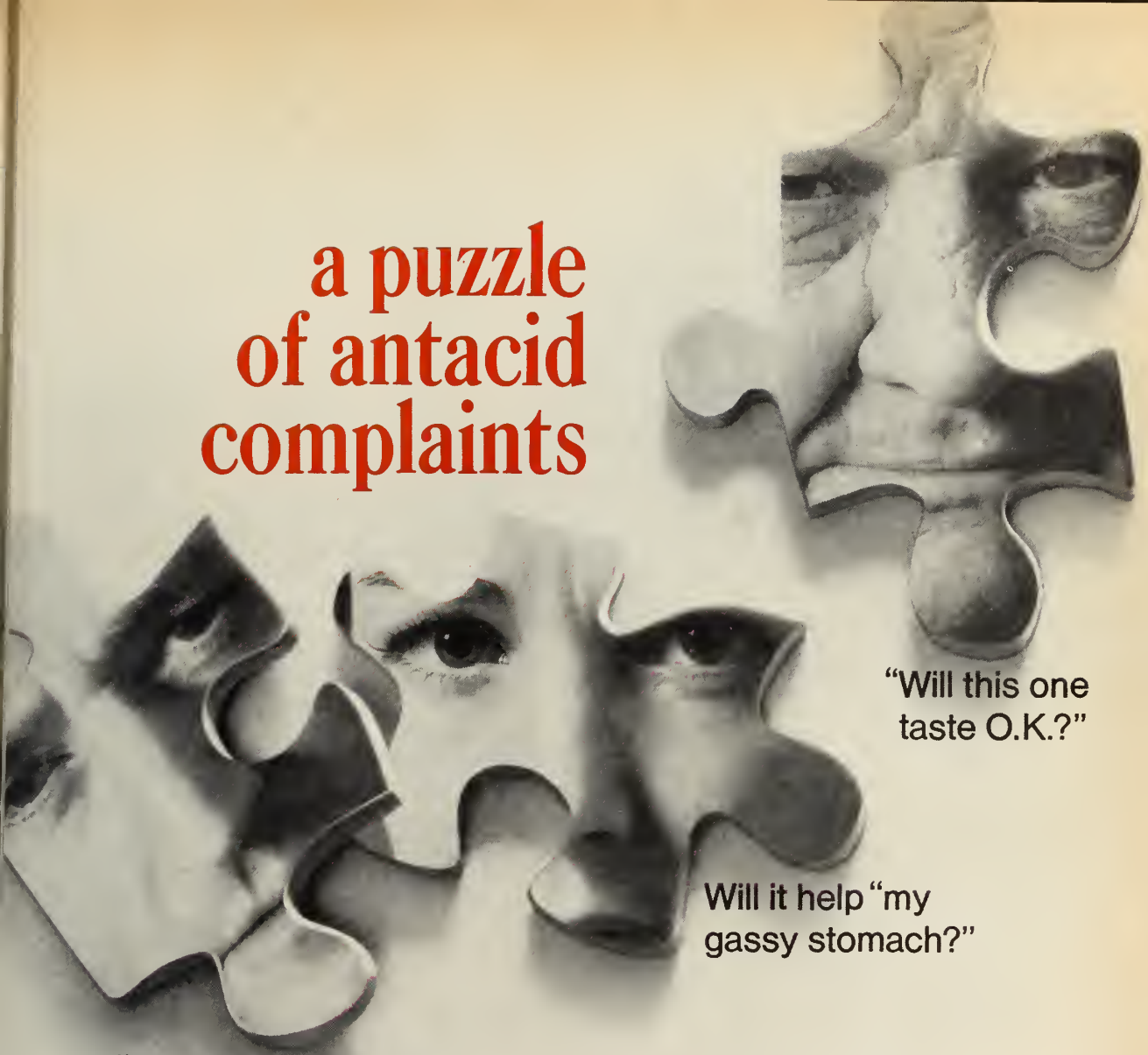
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References: 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et al.: Angiology, 12:102, 1961. 3. Rawls, W., et al.: Med. Times, 87:818, 1959.

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References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

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For a cold, NTz® Nasal Spray provides rapid relief of nasal symptoms. Relief starts with the first spray which opens the inferior part of the common meatus. A second spray, a few minutes later, will shrink the turbinates to help provide sinus drainage and ventilation. Dosage may be repeated every three or four hours as needed, for temporary relief of symptoms. NTz is well tolerated but overdosage should be avoided.

As a sinusitis deterrent, NTz Nasal Spray can be used to keep the nasal passages open during a cold to help prevent development of acute sinusitis—or to help prevent the acute condition from becoming chronic.

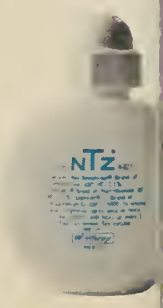
Supplied: NTz Nasal Spray, plastic squeeze bottles of 20 ml.; NTz Nasal Solution, bottles of 30 ml. (1 fl. oz.) with dropper.

NTz is more than a simple vasoconstrictor. It contains

Neo-Synephrine® (brand of phenylephrine) HCl 0.5 per cent, the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction.

Thenfadil® (brand of thenyldiamine) HCl 0.1 per cent, topical antihistamine for reduction of rhinorrhea, sneezing or itching. It combats the allergic reactions that may occur in colds or sinusitis.

Zephiran® (brand of benzalkonium, as chloride, refined) 1:5000, antiseptic preservative and wetting agent to promote penetration and spread of the formula.



Winthrop Laboratories, New York, N.Y. 10016 Winthrop

SECOND UNITED WAY CONFERENCE

(Continued from Page 1128)

ness that this situation has spawned."

The UCFCA and the UHF are devoting their energies to the improvement of efficiency and effectiveness in the voluntary health and welfare programs. They are advocating, among other things, a more comprehensive approach to the health needs in each community, reorganizations involving merger and consolidation of agencies, a variety of collective actions, and a unified administration of common programs and services.

In the more informal discussions it became abundantly clear that even the best of principles were frequently not acceptable to the power structure in a community. With this situation: industrial representatives expressed impatience; professional staff members defended deliberation and tolerance, so long as their particular agency was not to be phased out; volunteers retained their enthusiasm for the particular hobby or vested interest that brought them to the conference in the first place.

As a rank amateur in this field, your representative from Alabama was rather overwhelmed to learn that there are more than 100,000 national, regional, and local voluntary health and welfare agencies in this country, and more than 2,200 United Funds and Community Chests! The structures, regulations, and functional relationships involved in all these make the current cacophony of Federal health legislation read like the 23rd Psalm.

Seriously, I am convinced that the overextended, embattled physician must defend his flank from the voluntary sector as carefully as he does from the government. On stated occasions the physician can exercise his constitutional right to overthrow the government by due process of democratic election. *To secure a vote in the voluntary sector, his franchise must be purchased at a higher price: active participation and community leadership.*

APPALACHIAN HALL

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ASHEVILLE NORTH CAROLINA



An institution for the diagnosis and treatment of psychiatric and neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin coma, electroshock and psychotherapy are employed. The institution is equipped with complete laboratory facilities, including electroencephalography and x-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin, Jr., M. D.
Robert A. Griffin, M. D.

Mark A. Griffin, Sr., M. D.
Mark A. Griffin, Jr., M. D.

Establishment of Mental Health Authorities and Corporations

The State Board of Mental Health at its meeting on March 7, adopted the following procedures governing establishment of Community Mental Health Authorities and Regional Mental Health Public Corporations.

They are published herewith for the information of those physicians who may desire to participate in expansion of Mental Health Facilities in Alabama:

Procedures For Applying to the Alabama Mental Health Board for Recognition as a Community Mental Health Authority

In order to secure recognition from the Alabama Mental Health Board as a Community Mental Health Authority, a statement containing the following information should be submitted to the Department of Mental Health.

1. Area to be served (with reference to counties, municipalities, unincorporated communities, or any part or combination thereof.)
2. Program of Service.
 a. List of services presently provided, or to be provided immediately.
 b. Show relationships to other community mental health programs in the service area.
 c. Plans for the development of a comprehensive community mental health program for the service area.
3. A statement that the agency will meet minimum standards and criteria established by the Alabama Mental Health Board and the State Board of Health.
4. A discussion of the type administrative control of the agency (attach copy of Certificate of Incorporation and By-Laws).
5. Plans for Financial Support.
6. Other information that applicant deems pertinent to support the request.

Upon the Department of Mental Health's receipt of the request, a review will be made by the Department's Division of Community Services. At that point, further information and/or clarification may be requested by the Division. Upon completion of its review, the Division of Community Services forwards the request with recommendation for approval or disapproval to the Alabama Mental Health Board who makes the final determination.

After the decision is made by the Alabama Mental Health Board, the Division of Community Services is instructed to give proper notification to the applying agency.

The Establishment of Regional Mental Health Public Corporations

Procedures for Securing Supporting Documents From the Alabama Mental Health Board and the State Board of Health

Under the provisions of Section 3, Act 310, 1967 Alabama Legislature, Regular Session (the Regional Mental Health Public Corporation Act), persons desiring to incorporate a regional mental health public corporation, must have a document from the Alabama Mental Health Board and the State Board of Health showing that the facilities and programs, which the incorporators propose to establish, will be in accordance with minimum standards and criteria established by such boards. In order to secure these statements from the Alabama Mental Health Board and the State Board of Health, the following information will be needed.

1. A description of the area of the state to be served. This description will be suf-

ficient if stated with reference to counties, municipalities, unincorporated communities, or any part or combination thereof.

2. The location of the principal office of the proposed corporation.

3. A statement showing which aspects of the programs, as defined in Section 1, Act 310, the incorporators propose to implement and the approximate dates for beginning operation of such programs.

4. A statement that each of the incorporators is a resident of the area which will be served by the proposed facilities and programs.

5. A statement that it is the intent of the incorporators to meet present and future minimum standards and criteria established by the Alabama Mental Health Board and the State Board of Health.

6. A statement that the intent of the corporation will be to cooperate with other public and volunteer agencies in the development of its program, and that it will enter into such cooperative agreements as may be necessary and advisable to insure coordination and continuity of community mental health services.

You will note that much of this information is also required by provisions of Act 310 to be submitted to each governing body from which authority to incorporate is desired. It is therefore suggested that one inclusive statement be prepared for the initial approval of the Alabama Mental Health Board and the State Board of Health and the subsequent approval of the appropriate governing bodies. Upon review of the statements by the Alabama Mental Health Board and the State Board of Health, you will receive a supporting document (or request for further information or clarification) which should then be included with your statement when your request to incorporate is submitted to the appropriate governing bodies.

The governing bodies should be requested to adopt a resolution approving the formation of the proposed corporation (a suggested format for such resolution is attached).

Further directions for the completing of the incorporation are given in Act 310 (especially Sections 4, 5, 6, 7).

Statements should be forwarded to the following persons for handling:

For the Alabama Mental Health Board:
Dr. Ernest C. Land, Director
Division of Community Services
Alabama Department of Mental Health
740 Madison Avenue
Montgomery, Alabama

For the State Board of Health:
Mr. Clay H. Dean, Director
Bureau of Health Facilities Construction
Alabama Department of Public Health
State Office Building
Montgomery, Alabama

Sample Resolution

WHEREAS, an application has been filed by (*List—must be at least three natural persons who are residents of the area to be served*) requesting the adoption of a resolution approving the formation of a public corporation, under the authority of Act No. 310, adopted at the 1967 Regular Session of the Legislature of Alabama, AND

WHEREAS, the purpose of such public corporation is to contract with the State Board of Health and the Alabama Mental Health Board in constructing and operating facilities, and in carrying out a program of community mental health services in (*list service area*)

with principal offices in

....., AND

WHEREAS, said applicants have presented documents from the Alabama Mental Health

Board and the State Board of Health showing that the facilities and programs, which the incorporators propose to establish, will be in accordance with minimum standards and criteria established by such boards,

NOW, THEREFORE, BE IT RESOLVED by the Governing Body of _____, Alabama, that said application to incorporate for the purposes as set out in said application, be and the same is hereby approved.

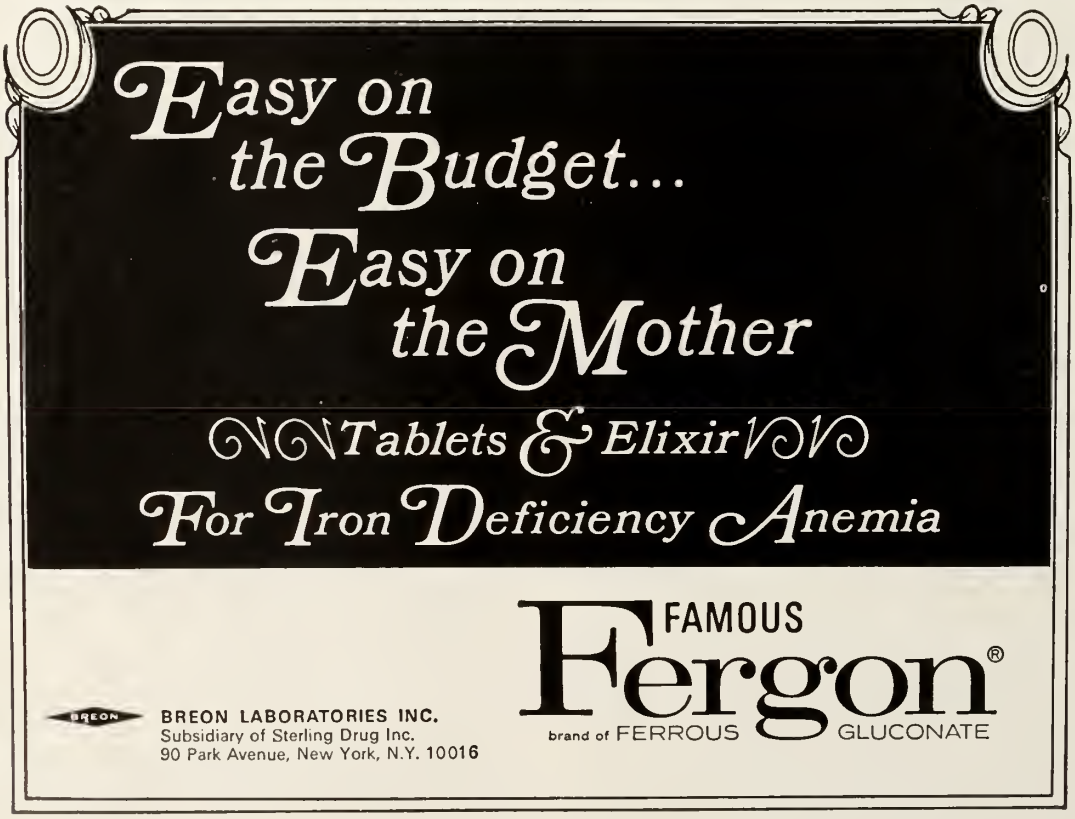
Adopted, this the _____ day of _____, 19__.

The Governing Body of _____

Extended Care Facility

Extended care is currently the focal point of many discussions dealing with total patient care. The American Medical Association, rising to meet the need for an assessment of the medical profession's role in the provision, supervision and measurement of such care, has published *The Extended Care Facility.*

This comprehensive, 172-page handbook treats such topics as area-wide planning, patient-care policies, the formation of utilization review committees, models of patient-transfer agreements, etc. It may be obtained from the AMA Order Department, 535 North Dearborn Street, Chicago, Illinois 60610. In the U. S., U. S. Possessions, Canada and Mexico copies are available for 90 cents each; 70 cents for medical students, interns and residents. The cost is $1.10 in all other countries. Orders should indicate the code number, OP-157, and must include remittance.



The muscle relaxant that works before you write a prescription

Relieve painful skeletal muscle spasm in your office in minutes with a single 2 cc. injection of NORFLEX. Then, for sustained relief, write a prescription for NORFLEX tablets, 1 tablet b.i.d.

CONTRAINDICATIONS: Due to its anticholinergic action, NORFLEX should not be used in patients with glaucoma, pyloric or duodenal obstruction, stenosing peptic ulcer, prostatic hypertrophy or obstruction at the bladder neck, cardiospasm (megaesophagus) and myasthenia gravis. Use with caution in patients with tachycardia. Do not use propoxyphene (Darvon®) concurrently.

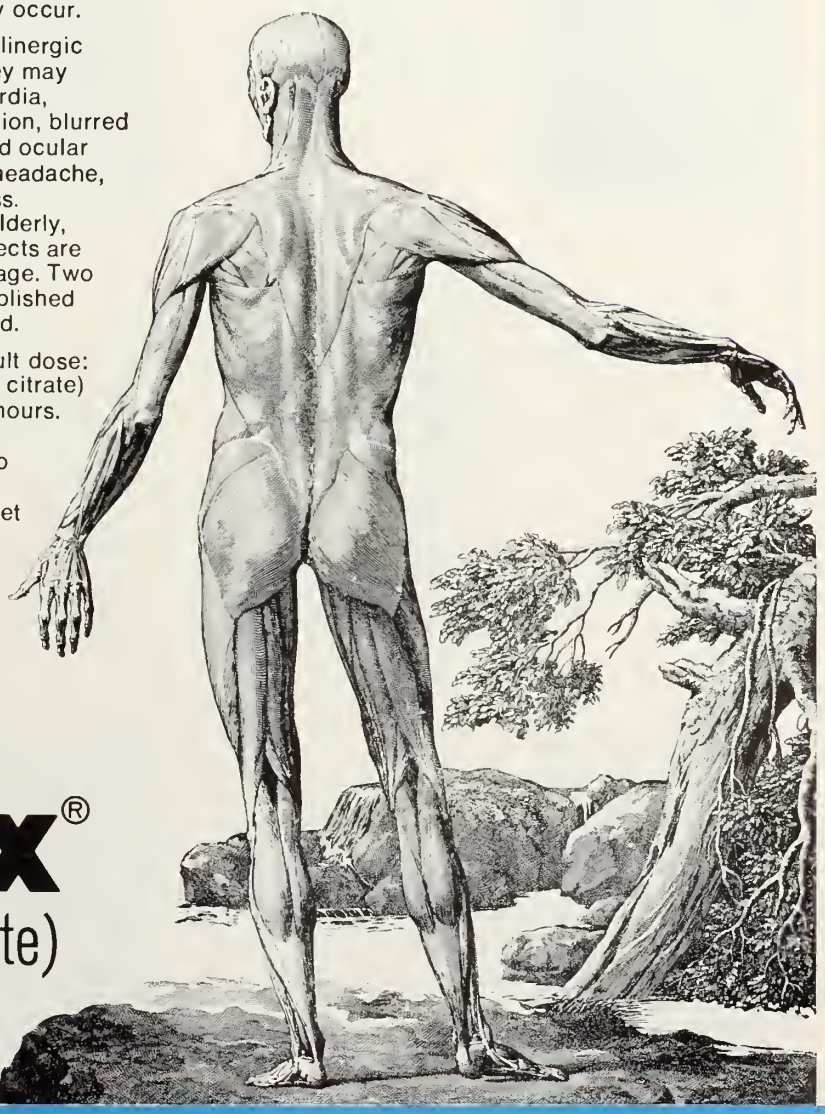
WARNING: Transient lightheadedness or dizziness following NORFLEX-INJECTABLE may occur.

SIDE EFFECTS: Due mainly to anticholinergic action and usually at high dosage. They may include dryness of the mouth, tachycardia, palpitation, urinary hesitancy or retention, blurred vision, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, and drowsiness. Infrequently, mental confusion in the elderly, urticaria or other dermatoses. Side effects are usually eliminated by reduction in dosage. Two cases of aplastic anemia, with no established causal relationship, have been reported.

DOSAGE: **INJECTABLE** — Average adult dose: one ampul, 2 cc. (60 mg. orphenadrine citrate) I.M. or I.V. May be repeated every 12 hours. Relief may be maintained with one NORFLEX tablet b.i.d. **TABLETS** — Two tablets per day for adults, one in the morning, one in the evening. Each tablet contains 100 mg. orphenadrine citrate.

For full information, see Package Insert or P.D.R.

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Northridge, California 91324



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(orphenadrine citrate)

around the state

New Physicians Licensed To Practice In Alabama

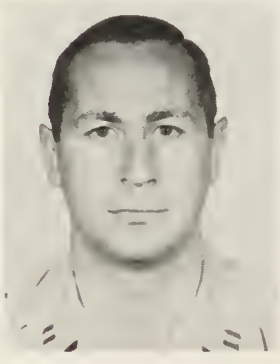


Sally Newton Morrow, M. D., Medical College of Alabama, 1963, Reciprocity with National Board of Medical Examiners—Intends to locate in Birmingham.



Roy Franklin House, Jr., M. D., University of Tennessee College of Medicine, 1964, Reciprocity with Tennessee—Intends to locate in Red Bay.

Henry George Croci, M. D., Ohio State University College of Medicine, 1965, Reciprocity with Ohio—Intends to locate in Montgomery.



Franklin Edward Kappen, M. D., Louisiana State University School of Medicine, 1952, Reciprocity with Louisiana—Intends to locate in Birmingham.





John Ridgway Durant, M. D., Temple University School of Medicine, 1956, Reciprocity with South Carolina—Intends to locate in Birmingham.



James Benjamin Moffett, M. D., Washington University, 1946, Reciprocity with Missouri—Intends to locate in Birmingham.

New Grants Boost Skin Disease Research at UAB Medical Center

At some point in life, one out of every two people in the United States has a problem with skin diseases caused by fungi. From the infant's battle with diaper rash and thrush to the elderly person's irritations from fungi, skin diseases are very much with us. Recently, American soldiers in Vietnam have been plagued with skin problems wrought by fungi and bacteria of the Asian jungles. Together, these problems have precipitated new U. S. interest in the infectious organisms which cause such damage and extreme discomfort.

This heightened interest has resulted in $94,556 in grants and gifts to a team of dermatologists at the Medical College of Alabama. The awards are for research studies directed to new knowledge of skin diseases—the organisms involved, and new possibilities for methods of prevention and treatment.

The National Institutes of Allergy and Infectious Diseases has approved grants of $27,336 for studies on the pathogenesis of superficial skin infections (ringworm, groin itch), $50,000 for studies of dermatophytes (germs that cause ringworm), and $17,220 for studies of Candidiasis (a fungus infecting both skin and internal organs, causing diaper rash and thrush).

Heading the Medical Center team studying these diseases is Dr. Leopoldo F. Montes, associate professor in the Department of Dermatology. Dr. Montes, a native of Argentina, joined the faculty in 1966. He received his M. D. degree from the University of Buenos Aires, and, later, a Master of Science degree from the University of Michigan. His major research interests are in superficial skin infections, including tinea cruris (groin itch) and ringworm; mycology (study of fungi); electron microscopy; and histochemistry (study of the chemical composition of cells). Though most of his work is with the "down to earth" skin infections, he pursues other, more esoteric, subjects in dermatology as well. He has conducted research on the response of human skin to long-term space flight electrodes, and is the author of a paper on the subject.

Another member of the dermatology team is Dr. Victor S. Constantine, assistant professor of dermatology. Dr. Constantine's major interest is in skin cancer, including investigations of the development of keratoses, or cancers, on the skin due to chronic exposure to the sun. His work involves extensive use of the electron microscope. Dr. Constantine received his M. D. degree from Duke University, and an M. S. in pathology from the University of Alabama.

A recent addition to the team is Miss Annie Jo Narkates, who holds an M. S. in microbiology from Birmingham-Southern College. Miss Narkates is in charge of the laboratory culture of microorganisms which cause skin infections.

Rural Health Guidelines

Complementing the five-point rural emergency medical services plan recently developed by the AMA's Council on Rural Health is its vital sequel—"Guidelines for Implementation . . ."

This essential aid affords countless serviceable suggestions which no doubt will prove instrumental in achieving the desired results long sought by rural community leaders. Its four pages are brimming with ideas relative to organizational structure, mechanisms by which presently existing emergency systems may be evaluated and general recommendations with regard to first aid, communications and transportation. Single copies may be obtained—at no cost—from the Council on Rural Health, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.





Weighing on his mind, too

TABLETS

Equagesic®

(meprobamate and ethoheptazine citrate with aspirin) Wyeth®

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore, it should be used in pregnant patients or women of childbearing age only when the physician judges its use essential to the patient's welfare.

Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with immediate gastric lavage and appropriate supportive therapy (CNS stimulants and pressor amines as indicated).

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness. Overdosage may result in CNS depression (drowsiness and lightheadedness) or CNS stimulation and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]). Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically such as with epinephrine, antihistamine and possibly hydrocortisone. A few cases of leucopenia, usually transient, have been reported following continuous use. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories **Philadelphia, Pa.**

When pain evokes anxiety and tension, thereby heightening patient discomfort, a simple analgesic may only touch on part of the problem.

This single-prescription, non-narcotic product, however, usually provides effective analgesia *and* helps put the patient's mind at ease.



Vital Statistics

NEW MEMBERS

Barbour County

Yohn, Kenneth Crawford, Eufaula, Ala. 36027.

Escambia County

Thomas, James Brooks, Jr., Atmore, Ala. 36502.

Houston County

Hanson, William Brown, 509 W. Main St., Dothan, Ala. 36301.

Lauderdale County

House, John Orman, P. O. Box 596, Florence, Ala. 35630.

Macon County

Williams, Joshua Warner, P. O. Box 145, Tuskegee Ins., Ala. 36088.

Mobile County

Berry, Sidney Ray, 157 Louiselle St., Mobile, Ala. 36607.

Edmonds, Leland Creason, P. O. Box 4481, Mobile, Ala. 36604.

Foster, LeBaron Anthony, 1453 Davis Ave.. Mobile, Ala. 36603.

Jackson, Andrew William Roman, 1388 Davis Ave., Mobile, Ala. 36603.

Jordan, Jerry Dugger, Mobile General Hospital, Mobile, Ala. 36617.

Martin, Philip Dodd, Jr., 1803 North Wilson Ave., Prichard, Ala. 36610.

O'Gwynn, John Coleman, III, 1565 Dauphin St., Mobile, Ala. 36604.

Montgomery County

Brown, Richard Evans, 347 South Ripley Street, Montgomery, Ala. 36104.

Frazer, David Hugh, 750 Washington Avenue, Montgomery, Ala. 36104.

Morgan County

McCain, Paul Pressly, 1904 Flint Rd., SE, Decatur, Ala. 35601.

Moore, James DeWese, 1501 7th Ave., SE, Decatur, Ala. 35601.

Owens, Samuel Britt, 1501 7th St. SE, Decatur, Ala. 35601.

Pack, Milton, 1020 13th Ave. SE., Decatur, Ala. 35601.

Roberts, Gerald Ray, 407 4th Ave., SE, Decatur, Ala. 35601.

Street, Herbert Sheppard, 1202 13th Ave. SE., Decatur, Ala. 35601.

Vaughan, Betty Walthall, P. O. Box 1366, Decatur, Ala. 35601.

Walker County

Dailey, Rebecca Fitzgerald, P. O. Box 1389, Jasper, Ala. 35501.

Payne, Thomas Jefferson, III, 203 E. 19th St., Jasper, Ala. 35501.

MEMBERS DECEASED

Baldwin County

Bryant, Percy Ausphera, Bay Minette, Ala. 36507—deceased October 25, 1967.

Choctaw County

Phillips, Jim Smith, Butler, Ala. 36904—deceased February 3, 1968.

Crenshaw County

Abercrombie, Henry Simmons, Petrey, Ala. 36062—deceased.

Cullman County

Williams, Reddoch Evans, Jr., 400 E. Arnold St., Cullman, Ala. 35055—deceased February 27, 1968.

DeKalb County

Killian, Claude Dallas, 411 Grand Ave., S., Ft. Payne, Ala. 35967—deceased February, 1968.

(Continued on Page 1144)

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that clouds vision

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PHENOBARBITAL 16 mg.
(Warning: may be habit forming)
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A Solfoton tablet or capsule at 6 hour intervals maintains sedation at the threshold of calmness, sustaining a mental climate for purposeful living.

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RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

VITAL STATISTICS

DECEASED MEMBERS

(Continued from Page 1143)

Escambia County

Treherne, Alfred James, Atmore, Ala. 36502—deceased January 27, 1968.

Etowah County

Nolen, Frances McClain, 1041 Forrest Ave., Gadsden, Ala. 35901—deceased March 5, 1968.

Jefferson County

Davidson, Marion Tabb, 2937 Southwood Rd., Birmingham, Ala. 35223—deceased.

Kay, Frank Alfred, 3015-7th Ave. South, Birmingham, Ala. 35233—deceased January 2, 1968.

Madison County

Duncan, Maurice Miller, 515 Eustis Ave., SE, Huntsville, Ala. 35801—deceased November 29, 1967.

Tallapoosa County

Denney, John Lofton, 405 Greene St., Alexander City, Ala. 35010—deceased February, 1968.

Walker County

Gwin, Paul Eugene, Sumiton, Ala. 35148—deceased December, 1967.

Wilcox County

Fudge, Walter, Lamison, Ala. 36747—deceased January 7, 1968.

CHANGES OF ADDRESS

Calhoun County

Reynolds, Walker, Jr., present Anniston, Ala. 36201, to P. O. Box 1196, Anniston, Ala. 36201.

Winslow, Robert C., present Anniston, Ala. 36201, to C-3 McMillian Terrace, Anniston, Ala. 36201.

Clay County

Sanders, Wm. M., present Ashland, Ala. 36251, to 310-8th Ave. SW, Rochester, Minnesota, 55901.

Coffee County

Kimmey, John M., present Elba, Ala. 36323 to 808 Putman Street, Elba, Ala. 36323.

Colbert County

Hensleigh, John Frederick, Cherokee, Ala.—moved to Tennessee.

Escambia County

Calhoun, Wallace Everette, Jr., P. O. Box 488, Moss Point, Miss. 39563—moved from state.

Etowah County

Shaddix, Marion L., present Alabama City, Ala. 35904, to 404 Shaddix Drive, ACS, Gadsden, Ala. 35904.

Jefferson County

Brand, O. B., present Birmingham, Ala. 35214, to 1328 Forestdale Blvd., Birmingham, Ala. 35214.

Bryant, Robert E., Jr., present Birmingham, Ala. 35217, to Box 400, Pinson, Ala. 35216.

Morgan, James M., Jr., present Birmingham, Ala. 35210, to 208 Medical Arts Building, Birmingham, Ala. 35205.

Nicholson, Wm. H., Jr., present Birmingham, Ala. 35205, to 1025 South 18th St., Birmingham, Ala. 35205.

Palmer, Fred L., present Birmingham, Ala. 35223, to Route 4, Covington, Georgia 30209.

Palmer, Stephen D., present Birmingham, Ala. 35216, to 1900 Hoover Court, Birmingham, Ala. 35226.

Powell, Clifford P., present Birmingham, Ala. 35205, to 1505-10th Ave. South, Birmingham, Ala. 35205.

Madison County

Akin, Tony Joe, present Huntsville, Ala. 35801, to 401 Lowell Drive, S. E., Huntsville, Ala. 35801.

Cosby, J. C., present Huntsville, Ala. 35801, to 930 Franklin St., SE, Suite 105, Huntsville, Ala. 35801.

Mobile County

Cobb, Jeptha B., present Mobile, Ala. 36608, to 1905 Clark St., Dothan, Ala. 36301.

Crippen, Edward Filmore, 248 Cox St., P. O. Box 4533, Mobile, Ala. 36604—moved from state.

Dismukes, H. M., present Mobile, Ala. 36604, to 1359 Springhill Ave., Mobile, Ala. 36604.

Gilchrist, Philip P., present Mobile, Ala. 36604, to 1359 Springhill Ave., Mobile, Ala. 36604.

Lester, R. P. present Mobile, Ala. 36604, to 606 Van Antwerp Bldg., Mobile, Ala. 36602.

Minor, W. H., Jr., present Mobile, Ala. 36604, to 6930 Brookcrest Way., Citrus Heights, California 95610.

Robinson, J. M., present Mobile, Ala. 36603, to 1800 Stone Street, Mobile, Ala. 36617.

Montgomery County

Jabour, F. Emile, present Montgomery, Ala. 36104, to 825 Adams Avenue, Montgomery, Ala. 36104.

Rosen, H. Leon, present Montgomery, Ala. 36104, to 2140 Upper Wetumpka Road, Montgomery, Ala. 36107.

Ward, A. Almon, present Montgomery, Ala. 36104, to 2119 East South Boulevard, Suite 318, Montgomery, Ala. 36111.

Morgan County

Burt, Charles H., present Decatur, Ala. 35601, to 1201 Somerville Road, S. E., Decatur, Ala. 35601.

Wilder, Guy B., Jr., present Decatur, Ala. 35601, to 1201 Somerville Road, S. E., Decatur, Ala. 35601.

Tuscaloosa County

Strahan, Eva E., present Tuscaloosa, Ala. 35401, to 25 Southmont Drive, 5 Skyland Park, Tuscaloosa, Ala. 35401.

Wilson, J. W., present Tuscaloosa, Ala., 35401, to 312-19th Ave., Apt. 515, Tuscaloosa, Ala. 35401.

MEMBERS TRANSFERRED

Houston County

Griffin, Stanley Wade, 1007 Montezuma, Dothan, Ala. 36301 (Transfer from member of Geneva County Medical Society to Houston County Medical Society.)

Lauderdale County

O'Brien, Donald J., 426 W. College Street, Florence, Ala. 35630 (Transfer from member of Colbert County Medical Society to Lauderdale County Medical Society.

1968
County Officers

DeKalb

President, W. C. Gibson, M. D., Rainsville

Vice-President, J. E. Quimby, M. D., Valley Head

Secretary, C. A. Isbell, M. D., Fort Payne

Treasurer, J. B. Isbell, III, M. D., Fort Payne

Censors: J. N. Chitwood, M. D., Chairman, Fort Payne; J. B. Isbell, III, M. D., Fort Payne; R. J. Guest, Jr., M. D., Fort Payne; G. I. Weatherly, Jr., M. D., Fort Payne; and C. A. Isbell, M. D., Fort Payne.

Delegates: W. C. Gibson, M. D., Rainsville, and J. N. Chitwood, M. D., Fort Payne.

Alternate Delegates: C. A. Isbell, M. D., Fort Payne, and R. A. Igou, Jr., M. D., Fort Payne.

The society meets regularly on the first Tuesday of each month at 6:30 P. M.

(Next Page)



Elmore

President, L. H. Owsley, M. D., Wetumpka

Vice-President, J. R. Benson, M. D., Wetumpka

Secretary-Treasurer, C. S. Cotlin, Jr., Wetumpka

Board of Censors: W. A. Edwards, M. D., Wetumpka, Chairman; J. R. Benson, Wetumpka; E. O. Majure, Tallassee; L. H. Owsley, Wetumpka; and E. R. Lett, M. D., Tallassee.

Delegates: H. C. Nickson, Jr., Eclectic, and J. E. Dunn, Jr., M. D., Wetumpka.

Alternate Delegates: E. O. Majure, M. D., Tallassee, and J. R. Benson, M. D., Wetumpka.

The society meets regularly on the 4th Tuesday in February and the 4th Tuesday in November at 7:00 P. M.

Escambia

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Vice-President, Benjamin C. Maxwell, Atmore

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(Continued on Page 1148)

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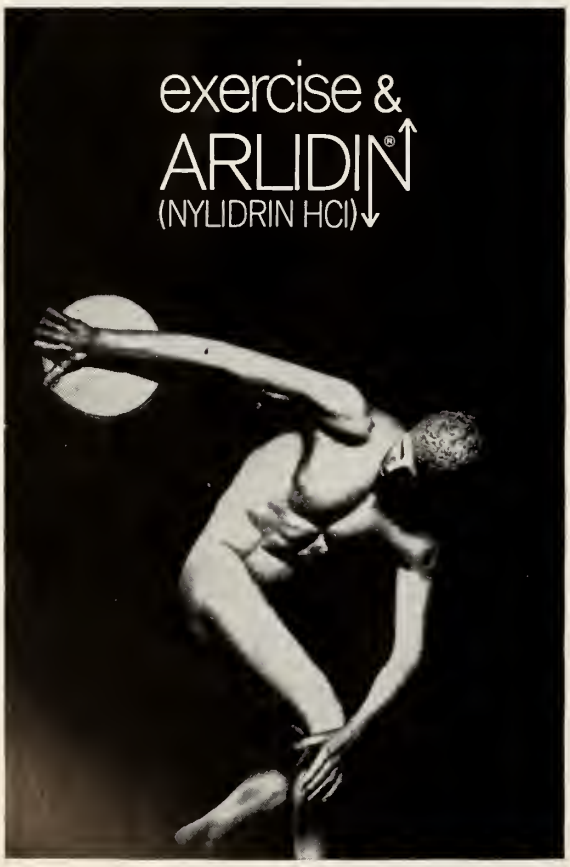
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Transfer Of Patient's Records

Is it ethical for a physician, retiring from practice, to sell his patients' records to another physician?

According to an opinion adopted by the AMA Judicial Council in November, 1967, a physician's records have been developed during the physician-patient relationship. This relationship, referred to in Section 9 of the *Principles of Medical Ethics,* requires that a physician not reveal the confidences entrusted to him in the course of medical attendance. Therefore, since the physician's records summarize these confidences, they too are cloaked with this same protection.

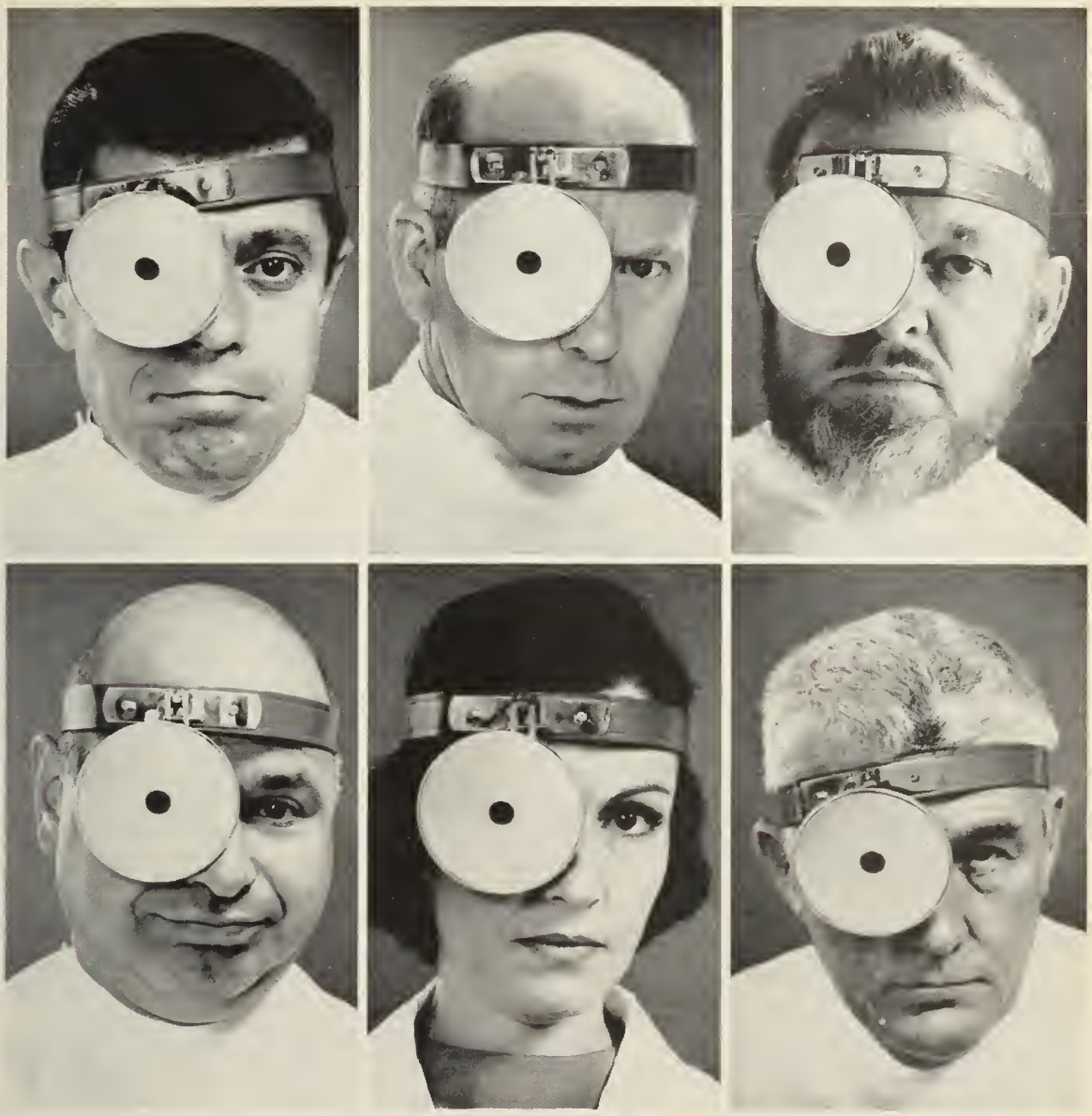
The Council states further that a transfer of a patient's records, without his consent, would violate this confidence. However, with the patient's consent, his records may be transferred to a physician of his choice and a reasonable charge made for secretarial or duplicating services.

Furthermore, the Judicial Council declares that a physician may not ethically *purchase* such records from a retiring physician or from the estate of a deceased physician.

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Locations Wanted

Administrative—

Age 64; Jefferson Med. College, 1928; Board certified; Available immediately. LW-274

Allergy—

Age 40; State Univ. of N. Y., 1953; Board certified; National Board; seeking group or associate practice. Available immediately. LW-275

General Practice—

Age 41; University of Illinois College of Medicine, 1954; seeking group practice; available July, 1968. LW-276

Age 38; University of Oklahoma, 1955; seeking associate, institutional or industrial practice; in town of 10,000 plus population; interest in surgery. LW-277

Age 28; University of Tennessee, 1965; available November, 1968. LW-278

Age 28; Medical College of Alabama 1966; seeking practice in town of less than 14,000 population to fulfill scholarship requirements. Available 1968. LW-279

Age 34; University of Tennessee 1958; seeking solo, group, industrial, or associate practice. Available immediately. LW-280

Age 28; Baylor University College of Medicine 1965; seeking group, associate, industrial, institutional or aviation medicine practice. Available immediately. LW-281

Age 44; Medical College of Alabama, 1967, seeking associate practice in town of 12,000 plus population in central or south Alabama. LW-282

Internal Medicine—

Age 34; Hahnemann Medical College 1959; Board eligible, National Board; seeking solo, group, or associate practice. Available immediately. LW-283

Age 32; Albany Medical College, 1962; Board eligible; National Board; seeking solo, group, or associate practice. Available July 1968. LW-284

Age 29; State Univ. of New York at Buffalo, 1963; seeking group or institutional practice. Available July 1968. LW-285

Age 36; Georgetown Univ., 1956; Board eligible, seeking group, associate or institutional practice. LW-286

Age 34; University of Tennessee, 1958; American Board Certified, seeking group, industrial, or institutional practice. Available Spring 1968. LW-287

Neurology—

Age 30; Medical College of Alabama, 1962; Board eligible; National Board; seeking solo, group, associate or institutional practice. Available January 1969. LW-288

Obstetrics—Gynecology—

Age 32; Tulane University 1961; seeking group or associate practice. LW-289

Age 34; West Virginia Univ., 1963; Board eligible, seeking group or associate practice, available July, 1968. LW-290

Age 32; Univ. of Illinois 1964; National Board; seeking associate practice. Available July 1968. LW-291

Age 35; University of Miami, 1960; Board eligible; seeking group or associate practice; available September 1968. LW-292

Ophthalmology—

Age 31; Louisiana State Univ. 1962, seeking solo or associate practice. Available July 1968. LW-293

Age 33; Univ. of Tennessee, 1965, seeking solo, group or associate practice. Available July 1969. LW-294

Pediatrics—

Age 30; Medical College of Alabama, 1962; Board eligible; seeking associate or assistant practice. Available February 1968. LW-294A

Age 31; Vanderbilt University 1963; Board eligible; seeking group practice. Available August 1968. LW-295

Age 28; University of Texas, Southwestern, 1963; Board eligible; seeking group or associate practice. Available September 1968. LW-296

Age 36; Medical College of Alabama 1957; Board eligible; seeking group or associate practice. Available immediately. LW-297

Age 26, Univ. of Tennessee, 1965; Available mid- 1968. LW-297-A

Surgery—

Age 36; Univ. of California, 1960; Board certified; seeking group or associate practice. Available September 1968. LW-298

Age 31; St. Louis University 1963; Board eligible; seeking solo or associate practice. Interested in General Surgery with some General Practice. Available July 1968. LW-299

Age 33; Indiana University 1959; Board eligible; seeking group or associate practice. LW-300

Age 31; Medical College of Alabama 1961; Board eligible; National Board; seeking associate practice in town of 20,000-80,000 population. Available immediately. LW-301

Physicians Wanted

General Practitioners—

Opportunity in rapidly expanding community of 10,000-12,000 population adjacent to metropolitan center in north Alabama. Office space free for six months and equipment available. Staff privileges at nearby hospitals. PW-177

For town of 3,600 population in trade area of 5,000-7,000 within 100 miles of two large cities and the Gulf Coast. 50-bed hospital located in the town. Office space available. Agricultural and expanding industrial area. Several churches and two schools. Recreational activities in the town as well as nearby—golf course, hunting and fishing. PW-178

For town of approximately 1,000 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-179

Opportunity for one or more G. P.'s in city of approximately 8,000 population located in Northeast Alabama. Fully equipped clinic available. PW-180

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-181

For town of approximately 1,000 population in population center of 10,000 located in Southwest Alabama within 90 miles of the Gulf coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-182

For town with 1,000 population in trade area of 5,000 Southeast Alabama. Nearest large city with population of 50,000 is 55 miles. New clinic available rent free. No physicians in the town. Hospitals in surrounding town within 30 miles. Several churches and schools. PW-183

Opportunity in town of 1,500 population combined with adjoining town of 1,200 in population center of 14,500, located in central Alabama, approximately halfway between Birmingham and Montgomery. Clinic available rent free. Hill-Burton hospital-nursing home is located within a distance of 12 miles. Expanding industrial and agricultural area. Recreational advantages for water sports nearby. Churches and schools. A state college is located nearby. PW-184

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. One physician died recently. Hospital and nursing home in the city. PW-185

For town of 1,000 plus population in west-central Alabama in trade area of 20,000. Clinic available. Nearest city of approximately 70,000 population is located a distance of 17 miles. Farming, cattle, timber, and manufacturing plants are principal resources of the area. Churches, schools, and recreational advantages. PW-186

For solo practice in town of approximately 17,000 population located in east central Alabama. 48-bed general hospital. Arrangements available for office space. Excellent recreational advantages which include hunting, fishing and water sports. City owned airport. Numerous civic clubs. Excellent schools and churches. Expanding industrial and agricultural area. PW-187

Physician needed to associate with a large industrial concern in a northern Alabama metropolitan area of over 100,000. Four physicians on staff. Starting salary $16,000-$18,000 depending on qualifications. Excellent working conditions and fringe benefits. Good advancement opportunities. PW-188

Opportunity for one or more doctors in rapidly expanding eastern suburb of Birmingham. Attractive brick building consisting of 10 rooms and adjacent parking facilities. PW-189

Opportunity for general practitioner to join a five-man group, practicing as a partnership. Each man in the group is either specialized or semi-specialized. The practice is physically located within a 70-bed hospital. Willing to pay qualified person $36,000 for the first year, with possible partnership status in one year. Would consider a physician for locum tenens for three to six months at $2,000 per month. PW-190

Surgeon—

Opportunity for a Board eligible or Certified surgeon to practice in city of over 78,000 population in north Alabama. Equipment available. PW-191

Special Openings

Physician interested in Internal Medicine and Chest Diseases to provide general medical services in 184 bed Tuberculosis Hospital in North Alabama. References and experience data required in advance. U. S. citizens and fully licensed physicians given first choice. Others will be considered upon request. Salary open. PW-192

Medical Superintendent of 225 bed tuberculosis sanatorium with a building program in Birmingham. Salary and job description negotiable. Must be able to obtain Alabama license. PW-193

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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Published Under the Auspices of the Board of Censors

Volume 37 April, 1968 No. 10

A Clinical Evaluation of the Comparative Effectiveness of Chlorpropamide and Acetohexamide

by

Orlando J. Fox, D. V. M., Buris R. Boshell, M. D. and

John DiPlacido, M. D.

Birmingham, Alabama

In the 25 years since Janbon's[1] observation that p-amino-sulfonamide caused hypoglycemia, many agents have been studied. Some of the agents were discarded following preliminary animal experiments while others were discarded after clinical trials in man. As a result of this rather exhaustive search and subsequent very critical investigation two classes of compounds, the sulfonylureas and the biguanides, have emerged as effective compounds that are well tolerated by patients for long term use. Four sulfonylureas: tolbutamide, chlorpropamide, acetohexamide and tolazamide are currently on the market.

Tolbutamide has a short half life, a slightly lower potency and probably the lowest toxicity of any of the sulfonylureas.[2] Chlorpropamide has been considered to be the most potent, to have the longest half life and although more toxic than tolbutamide, much less than was originally predicted.[3-6] Acetohexamide has been considered to occupy an intermediate position from all standpoints between tolbutamide and chlorpropamide.[7-9] This report is a comparison of the clinical effectiveness of chlorpropamide and acetohexamide.

Materials and Methods

Chlorpropamide. The metabolic half life of chlorpropamide is 35 hours.[10, 11] The dosage

Birmingham Veteran's Administration Hospital and Medical College of Alabama, Department of Medicine, Division of Endocrinology and Metabolism, Birmingham, Alabama.

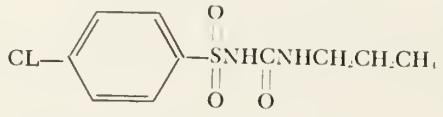
Supported in part by: UGDP Grant 5 RO1 AM06744-04, VA Research Project M 32-59, Medical College of Alabama Clinical Research Unit Grant 2MO1 GR32-06.

The Lilly Research Laboratory Grant No. 55-7397.

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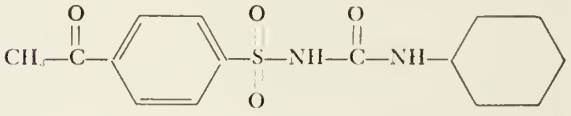
required varies from 100 to 750 mg. per day and only one dose per day is necessary because of the long half life. Following the administration of chlorpropamide a definite hypoglycemic effect is not seen until four hours and the peak activity is not observed until approximately ten hours after administration. Some effect is still present 24 hours after administration.[12] In man the primary excretory product is unchanged chlorpropamide.[13]



Chlorpropamide
(1-propyl-3-[*p*-chlorobenzenesulfonyl]urea)

Acetohexamide. Acetohexamide differs from the other available sulfonylureas in that it has an acetyl group in the para position of the phenyl ring and a cyclohexyl group on the urea moiety. It does not possess the amino group on the phenyl ring which is present on carbutamide and metahexamide, both of which were found to be too toxic for clinical use. Serum levels of acetohexamide after either oral or intravenous administration are considerably lower than those produced by comparable doses of tolbutamide. Peak concentrations of acetohexamide are found in the blood approximately 1.8 hours after oral administration.[14] This is apparently due to the distribution of acetohexamide into the total body water, rather than being limited to the extra-cellular fluid, as is the case with tolbutamide. The range of therapeutically effective serum concentrations of acetohexamide and its metabolites have been shown by Sheldon[15] to be substantially lower than that for tolbutamide and chlorpropamide. The principal metabolite of acetohexamide is hydroxyhexamide which reaches a peak concentration in 3.2 hours. The latter is excreted by the kidney and has an average half life of 5.3 hours.

Patients were selected from the outpatient diabetes clinic of the University of Alabama Medical Center. All of these patients were ketoacidosis resistant and had adult onset diabetes mellitus. Many of them had received prior therapy with oral hypoglycemic agents; however, whether they had or had not responded did not affect their selection for this study. As patients were accepted into the study, therapy was initiated with either chlorpropamide or acetohexamide in an alternate manner. Chlorpropamide was begun at a dose of 250 mg. per day and acetohexamide at a level of 500 mg. per day. Fasting blood glucose levels on diet alone were greater than 130 mg/100 ml in all patients who were admitted to the program. Before being declared a failure on a given drug, the patients, with rare exceptions, were treated for at least two months on maximal doses of the drug. The maximal doses used were 750 mg. per day for chlorpropamide and 3000 mg. per day for acetohexamide. After failing to respond to maximal doses for two months or after an excellent response for a minimum of two months, the patients were changed to the next drug. Patients were seen at least every four weeks and weights, fasting blood glucose levels, urine glucose and urine ketone levels were checked on each visit. Responsiveness was classified on the basis of fasting blood glucose levels into the following categories:



Acetohexamide

Excellent:	< 120 mg/100 ml
Fair:	121-140 mg/100 ml
Poor:	141-160 mg/100 ml
Failure:	> 160 mg/100 ml.

Blood glucose levels were determined on whole venous blood on the autoanalyzer.[16]

Results

Thirty-six patients received clinical trials with both drugs (See Table 1). Twenty-two patients fell into the excellent response cate-

TABLE 1

Response To Sulfonylurea Therapy
(36 patients)

	Acetohexamide	Chlorpropamide
Excellent (FBS < 120 mg/100 ml)	16	22
Fair (FBS 121 — 140 mg/100 ml)	9	6
Poor (FBS 141 — 160 mg/100 ml)	1	3
Primary Failure (FBS > 160 mg/100 ml)	10	5
Total	36	36

FBS = fasting blood glucose level.

gory on chlorpropamide therapy whereas only 16 patients were brought under this degree of control with acetohexamide. Nine patients fell into the fair response category on acetohexamide and six patients on chlorpropamide. There were ten primary failures to acetohexamide and five failures to chlorpropamide.

The average ages of the groups of patients in this study ranged from 58-64 years. (Table 2) Weights did not change significantly in either group during the study. The average dose of acetohexamide used in the responders was 1760 mg. whereas the average dose of chlorpropamide used in the responders was 462 mg. No serious toxicity developed in any patient in spite of the relatively large doses of the sulfonylureas employed. Severely debilitated elderly patients or patients with significant hepatic or renal disease, however, are not placed on oral hypoglycemic agents in our clinic.

A specific analysis of the ten patients who experienced primary failures on acetohexamide is presented in Table 3. Six of these patients demonstrated an excellent response to chlorpropamide; however, one of these later became a secondary failure to chlorpropamide. Six of the ten were also given a trial of phenformin in combination with either aceto-

TABLE 2

	Average Age (Years)	Mean Weights Before	Mean Weights After	Avg. Dose of Drug in Mg.
Chlorpropamide Responders	62	163	162	462
Chlorpropamide Failure	60	152	147	650
Acetohexamide Responders	64	165	161	1760
Acetohexamide Failure	58	148	149	2650

TABLE 3

Primary Failures to Acetohexamide
(10 patients)

Patient	Response to Chlorpropamide	Response to Tolbutamide	Response to Phenformin Plus Chlorpropamide or Acetohexamide
L. F.	Excellent		
E. G.	Failure		Fair*
D. G.	Excellent		
D. M.	Failure	Failure	Excellent*
I. P.	Excellent		Excellent**
G. I.	Excellent		Excellent
I. M.	Failure		
L. S.	Excellent		
L. P.	Poor		Excellent**
M. W.	Excellent		Excellent**

* Chlorpropamide + phenformin

** Acetohexamide + phenformin

TABLE 4

Primary Failures to Chlorpropamide
(5 patients)

Patient	Acetohexamide	Tolbutamide	Phenformin + Chlorpropamide or Acetohexamide
E. G.	Failure		Fair*
D. M.	Failure	Failure	Excellent*
P. B.	Excellent		Excellent**
I. M.	Failure		
A. M.	Fair		

* Chlorpropamide (500 mg/day)

** Acetohexamide (1500 mg/day)

The dose of phenformin employed was 50 mg. 3 times per day of the timed disintegration capsules (DBI-TD).

hexamide or chlorpropamide and in all instances there was a favorable response. The dose of phenformin employed was 50 mg. three times per day utilizing the timed-disintegration capsule (DBI-TD). When employed in combination with phenformin, acetohexamide was used at a dose level of 1500 mg. and chlorpropamide at a dose of 500 mg. per day.

The response of the five primary chlorpropamide failures to other therapy is presented in Table 4. Three of these patients failed to respond to acetohexamide, whereas one patient demonstrated an excellent and one a fair response to acetohexamide. Three of these patients also received a trial of phenformin plus acetohexamide or chlorpropamide and a favorable response was elicited in each instance.

Five patients who responded for at least a month to acetohexamide and who responded similarly to chlorpropamide became secondary failures (Table 5). The acetohexamide secondary failures with one exception gave a good response only to combination therapy, i.e., chlorpropamide plus phenformin. They gave some response to chlorpropamide alone but only two were brought under excellent control and one of these became a secondary failure. The two who were tried on combination therapy responded well. A similar pattern was noted among the four patients

TABLE 5

Secondary Failures

To Acetohexamide
(5 patients)

Subsequent response to:

Patient	Chlorpropamide	Tolbutamide	Phenformin + Chlorpropamide
M. B.	Fair	Fair with 2° failure	——
C. B.	Excellent	Fair with 2° failure	——
R. R.	Poor with 2° failure	——	Excellent
T. S.	Excellent with 2° failure	Failure	Excellent
V. W.	Fair	——	——

To Chlorpropamide
(4 patients)

Subsequent response to:

Patient	Acetohexamide	Tolbutamide	Chlorpropamide & DBI
I. P.	Failure	——	Excellent
R. R.	Excellent with 2° failure	——	Excellent
T. S.	Excellent with 2° failure	——	Excellent
R. W.	Fair	——	Excellent

who were secondary failures to chlorpropamide. An excellent and sustained response to oral hypoglycemic therapy occurred only when a combination of sulfonylureas and biguanides was employed.

Summary and Conclusions

Acetohexamide and chlorpropamide are both potent and effective oral hypoglycemic agents. Chlorpropamide appears to be slightly more potent than acetohexamide and in this instance produced excellent control of the diabetic state in 22 of 36 patients, whereas a similar degree of control was produced in only 16 of the same 36 patients with acetohexamide.

A patient who is a primary failure on acetohexamide is more likely to respond to chlorpropamide than vice versa. Secondary failures to either sulfonylurea are poor candidates for a single sulfonylurea but many respond extremely well to a combination of phenformin plus a sulfonylurea.

The criteria for an excellent response employed in this study, i.e., FBS $<$ 120 mg./100 ml. are more stringent than required by many investigators. Even so, 61 per cent of the patients fulfilled this requirement on chlorpropamide and 44 per cent on acetohexamide.

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The Diagnosis of Diabetes Mellitus

William L. Smith, M. D.

Montgomery, Alabama

Introduction

Like sin, diabetes mellitus may be obvious or well hidden; and, further like sin, hidden or obvious, diabetes will take its toll. The incidence of diabetes is increasing. Its deleterious effects upon health and longevity demand early and accurate diagnosis. A false positive diagnosis can jeopardize the insurability, employability, and unrestricted pursuit of happiness of the individual. A false negative diagnosis denies the benefits of treatment essential for control.

The increase in diabetes detection drives hopefully will continue. The present drives are designed to discover those individuals in need of study by their private physicians so that the diagnosis can be either confirmed or denied. It is the purpose of this paper to refresh the ability of physicians to more accurately and efficiently reach the proper diagnosis in the greatest per cent of cases possible. It is admitted that some borderline cases can not be resolved at a given time. The experts do not agree completely, although they do agree in principle, and their differences are a matter of a few milligrams of glucose.

Classical diabetes will be briefly reviewed. Proper use and interpretation of laboratory tests and the multiple factors affecting them will be presented. Finally, criteria for making the diagnosis of diabetes will be offered.

The beginning

The diagnoses of classical diabetes mellitus could be made in total darkness without any aid to the natural senses. The physician need only take a careful history, smell the odors of the patient and taste the patient's urine. Tasting went out of style two thousand years ago, odors are adulterated by civilization, but a careful history is indispensable.

Diabetes mellitus is an hereditary disorder of metabolism, characterized by carbohydrate intolerance, which follows the Mendelian laws of heredity. The factor is, fortunately, recessive. The offspring of two diabetics has 100 per cent chance of developing diabetes. The offspring of one diabetic and one nondiabetic theoretically has no chance of developing diabetes, but the possibility of the existence of the recessive trait (carrier state) in the nondiabetic parent is such that any individual with one diabetic parent has an 18 per cent likelihood of developing diabetes. It is said by authority that diabetes begins with conception.

A-B-C's

By applying a memory crutch all physicians can screen all patients for diabetes while taking the history. The key is "BEWARE." "B" is for big. They are fat, or recently have been. Even the juvenile may have shown a sharp weight gain just prior to the onset of symptoms. "E" is for eat. They eat a lot. "W" is for weary or wasting. "A" is for arid or dry. They drink a lot. "R" is for renal. They urinate a lot and usually have glucosuria. "E" is for eye. They have varying visual disturbances.

A patient exhibiting most of the above and ketonuria is almost surely diabetic. A patient exhibiting some or all excepting glucosuria is strongly suspect. It must be stressed that untreated diabetics can and do frequently

have urine specimens negative for sugar. Further, diabetics frequently have blood glucose determinations well within the normal limits, especially fasting values. Do not immediately dismiss the patient because of a negative test for glucosuria. Do not, on the other hand, immediately order a glucose tolerance test. A single blood glucose, preferably two hours post prandial, may confirm the diagnosis. The tolerance test can be harmful.

Border Line Cases: The majority of diabetics will not present a clear cut picture. Single laboratory tests will be inconclusive. Criteria therefore, must be set. The problem involves: 1. Preparation of the patient. 2. Exclusion of factors affecting the validity or interpretation of the results. 3. Choosing the proper test methods and 4. Proper interpretation of the findings.

1. Preparation of the patient includes a complete history and physical examination. The physician must have full knowledge and control of the patient. Adequate diet and other factors will be listed later. The preparation blends into the second item above.

2. Exclusion of factors affecting the investigation involve both physical and environmental conditions. These are:

Rare Melliturias
Thyroid disease
Cushing's disease
Nervous tension, including pylorospasm
Malabsorption syndrome
Acromegaly
Pheochromocytoma
Addison's disease
Liver disease
Pregnancy
Recent anesthesia
Starvation and/or gluttony
Alcoholism
Trauma
Prolonged bed rest
and others, glucogon and insulin administration.

Perhaps hospitalization should have headed the above list. The psychic trauma of hospitalization followed by starvation for testing, overfeeding by a regular diet plus fruit, candy and a double martini smuggled in by a soft-hearted friend or a soft-headed nurse; followed by more fasting for X-ray studies all affect carbohydrate tolerance.

3. Choosing the proper test methods involves understanding the laboratory procedures and knowing the normal values. The time, in relation to carbohydrate intake, that the specimen is obtained, the source of the specimen, venous or capillary; and the test employed all affect the interpretation. Different normal values are set for fasting and immediately post prandial levels. Venous blood is lower in glucose content than arterial and capillary (finger tip) blood. The latter may be 30 Mgm per 100 ml. higher especially post prandially. Different test methods give different results. The Folin-Wu method, widely used in the past, measures glucose plus other sarccharoids in blood. It averages 20 per cent to 30 per cent higher than true glucose methods and has been reported as much as 80 per cent above true glucose levels. The autoanalyzer, Somogyi-Nelson, and glucose oxidase methods are currently popular and measure true blood glucose levels. The autoanalyzer may give readings 15 per cent lower than the other two. Each laboratory must establish its normal values and publish them. Locally one hospital uses an autoanalyzer and states their fasting normals to be 60 to 100 mgm. Another hospital uses a "modification" of the Somogyi-Nelson and states norms of 65 to 110. A private pathology laboratory uses the Ortho toluidine tests with stated fasting normals of 60 to 100 mgm per 100 ml. A physician's office laboratory using the glucose oxidase method has normal fasting values of 60-110 mgm per 100 ml of glucose. This shows the variations. But no one should make a diagnosis of diabetes on a slightly elevated fasting blood glucose value regardless of the method. It is essential, how-

ever, to use a true glucose method in all doubtful cases. And the glucose tolerance test affords the final means of testing.

The glucose tolerance test most widely accepted is the so-called standard three or four hour test utilizing 100 gm of glucose as the test meal for adults and less for children, 70 Gm per sq. m. glucose. The patient is fasting. Tests are run fasting, 30 min., 1 hour, 90 min., 2 hours, and 3 hours after the test meal. The 90 minutes determination is important to detect the "rebound phenomenon" in which the lowest level of blood glucose occurs at approximately 90 minutes with a rise at 2 hours that might be interpreted as abnormal. The glucose meal should be flavored as palatably as possible. One pharmaceutical firm packages a cola drink for the purpose. All specimens should be venous in origin and run by a true glucose method. The patient must have been on a full diet containing at least 250 Gm of carbohydrates daily for at least three days prior to the test. This is frequently not met under usual hospital conditions.

Criteria

4. Proper interpretation of the findings requires establishing criteria for making the diagnosis. Leading authorities in this country and abroad, the Joslin group, Conn and Fajans, Mosenthal and Barry, The American Diabetes Association, R. D. Lawrence of England, and the University Group Diabetes Program all have stated criteria. They are not in perfect agreement. Until more light is shed on the subject, physicians must be content to accept some measure of compromise designed to do justice to their patients. But, whatever criteria are followed the diagnosis must be leavened by sound clinical judgment.

The diagnoses of diabetes mellitus should be conclusive if the true blood glucose (Somogyi-Nelson) in the fasting state is 160 mgm per 100 ml or above, and if the two hour post prandial true blood glucose is 200 mgm per 100 ml or above (No one should argue with this). Any fasting level below the stated top normal for the test employed usually rules out diabetes. A two-hour post prandial test is of greater value and should exclude diabetes if it is at the normal fasting level. Those in between are in the grey zone and require further observation and testing, usually with a tolerance test.

The University Group has simplified interpretation of the tolerance curve. The normal remains a normal fasting value and returns to normal or below at two hours. (The 90 minute level should be considered in case the rebound phenomenom is present.) An abnormal curve means diabetes if the sum of the true blood glucose fasting, one hour, two hour, and three hour levels is above 500 mgm. This, coupled with sound clinical judgment, can confirm the diagnosis. If there is doubt, wait a week, two weeks. Adequately study and prepare the patient and retest. Test again in six months. Test annually or as indicated.

Summary

The increased prevalence of diabetes mellitus and the need for early diagnosis coupled with the increase in diabetic detection drives suggests the need for re-emphasis on diagnostic problems and procedures. Classical diabetes is briefly discussed. Factors affecting testing and diagnosis are examined. Criteria for making the diagnosis are offered.

The use of laboratory methods measuring true glucose values is recommended. The establishing and publishing of normal values by laboratories is said to be essential. The full knowledge and control of the patient by the attending physician is said to be paramount.

Eczema Vaccinatum

by

Irving D. London, M. D.

and

David B. Monsky, M. D.

Montgomery, Alabama

When generalized vaccinia occurs in a patient with active eczema or a history of eczema, the disorder is known as eczema vaccinatum, a grave and sometimes fatal illness. Eczema vaccinatum may occur in children or adults after vaccination or accidental inoculation of the skin by contact with a vaccinated person.

The characteristic globoid vesicles and pustules, similar to those of smallpox, appear in crops for from several days to a week, usually in areas of the skin subject to eczema, but the eruption may also appear in previously healthy skin. The patient has fever and generalized malaise for a week or ten days.

A clinically indistinguishable illness and eruption may be caused by herpes simplex in an eczematous individual, this being known as eczema herpeticum. The two may be differentiated by the history and virologic studies.

We wish to present a case of eczema vaccinatum in a three year old child, previously treated by both of us during his first year of life for typical infantile atopic eczema. This child developed eczema vaccinatum after contact with a sibling who had been vaccinated.

The authors wish to thank Dr. Robert D. Francis, of the Medical College of Alabama, consultant in Virology to the Laboratory of the Alabama Department of Public Health, who assisted with the isolation of the vaccinia virus.

Case Report

A three year old colored child was brought in because of a blistering eruption around the knees and the right elbow on April 26, 1967. He had been seen previously at age five months (May 1964) for infantile eczema involving the usual areas: face, neck, antecubital and popliteal spaces, forearms, and legs. He was seen and treated for his eczema on various occasions during the next six months. His eczema then cleared according to his mother, and he had not had any eruption until this new illness.

His mother stated she had had a nine month old sibling vaccinated at the Montgomery County Health Department on April 19, 1967, but she had been instructed not to vaccinate the patient because of his eczema. In three days, the mother noted that the older child had some fever. On the fifth day, she noted some vesicles on his knees and these spread during the next two days.

Physical Examination: revealed a well developed and nourished colored male child with temperature of 102°F. Examination of the skin revealed groups of globoid vesicles and bullae arranged in circles on and around both knees (Figure) and around the right elbow. There were two small crusts on the left arm and forearms. There were some small papules on the lower abdomen. The rest of the examination was within normal limits.

Diagnosis of eczema vaccinatum was made,



and the child hospitalized at St. Jude's Catholic Hospital, Montgomery, Alabama.

Laboratory studies: 4/26/67, Urinalysis: Specific gravity—1.020, Albumin: Negative; Sugar: Negative; WBC: 4-7; RBC: 1-2; Bacteria: few.

CBC: WBC: 15,550; Hgb: 9.3, 59%; Hct: 30%; Differential: Stabs: 2, Seg: 58, Lymphocytes: 23, Monocytes: 10, Eosinophils: 7.

Differential: Stabs: 2, Segs: 58, Lymphocytes: 23, Monocytes: 10, Eosinophils: 7.

4/27/67 Sickle Cell Prep: Negative.

5/1/67 Stool Exam for Ova and Parasites: Ascaris found.

Serum Electrophoresis: Total Protein: 6.9 gms; Albumin: 49.3% (4.6 gms);

Globulins: Alpha 1: 5.7% (0.2 gms); Alpha 2: 11.8% (0.6 gms); Beta: 12.8% (0.7 gms); Gamma: 20.4% (0.8 gms). A/G Ratio 2:1.

April 27, 1967: Swabs were taken from exudate of several bullae and sent to the Virology Laboratory, of the Alabama Department of Public Health.

On April 27, 1967 telephone contact was made with an area Pediatric consultant of the American Red Cross, who arranged for vaccinia immune globulin to be sent air express. This arrived in the early afternoon and the complete dose of 10 ml. of V. I. G. (0.6 ml. per Kg.) was given intramuscularly that afternoon. More bullae and vesicles were appearing on this day. The day after administration of the vaccinia immune globulin the child's temperature dropped to normal, and one group of bullae were flatter. In four to seven days, marked improvement of all the lesions was noted. Two weeks after the globulin was given, the skin was essentially normal.

On May 24, 1967, the Virology Laboratory reported isolation of vaccinia virus from the exudate taken before treatment on April 27.

Discussion

An American Survey[1] of six million primary vaccinations and eight million revaccinations conducted in 1963 revealed an incidence of 108 cases of eczema vaccinatum.

Kempe[2] reported the mortality in children under two years of age with this disease given only supportive treatment to be 30 per cent. By treating these cases with vaccinia immune globulin he produced a much lower mortality rate (about 6 per cent) in these children.

Copeman and Wallace[3] reported a study of eczema vaccinatum based on records made in the first few months of 1962 during the mass smallpox vaccination in England and Wales. This disease occurred in 185 of 3,250,000 primary vaccinated: an estimated incidence of one in 20,000 intended primary vaccinations. There were 11 deaths, a mortality of about 6 per cent. About half of the patients including eight of the 11 who died were under the age of five years, 25 of them being under the age of one year. The disease was twice as common in males as in females. Eight of the 11 deaths were in male patients. Vaccination was accidental in 89 (65 per cent) of 137 patients. Of these 89 patients with accidental eczema vaccinatum, 74 acquired the infection from some other member of the family. The eczema at the time of vaccination was reported as inactive in two thirds of the patients, including seven of whom died. It was

predominantly of the atopic variety, but other dermatoses were also involved.

This case illustrates one of the hazards of smallpox vaccination and should alert one to the contraindications of vaccination. They are: (a) Eczema or other forms of chronic dermatitis either active or inactive, in the individual to be vaccinated or in a household contact. (b) Pregnancy. (c) Patients with leukemia, lymphoma, other reticuloendothelial malignancy, dysgammaglobulinemia, or under therapy with immunosuppressive drugs, such as steroids or antimetabolites, or receiving ionizing radiation.

Both the Public Health Service[1] and Copeman and Wallace[3] agree on the following immunization precautions: (1) If vaccination is required for an individual with dermatitis, because of potential exposure, vaccinia immune globulin should be given at the time of vaccination. (2) Eczematous subjects, particularly in childhood, and even if the eczema is quiescent, should be isolated strictly from the recently vaccinated. The risk of accidental vaccination should be emphasized. (3) Vaccinial immune globulin should be given to any patient seriously ill with eczema vaccinatum. This may be obtained from a Regional Blood Center of the American Red Cross following approval by a designated consultant.

Summary

A case of eczema vaccinatum is reported in a three year old child, who had been clear of infantile atopic eczema for two years. He was a household contact of a younger sibling who was vaccinated several days previously. He cleared promptly after receiving vaccinia immune globulin.

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Alabama Department of Public Health

The Detection of Phenylketonuria In A Public Health Laboratory

Thomas S. Hosty, Ph. D.

Ruby J. Atkins, B. A.

J. E. Barrett, M. D.

Probably no program instituted by the health department has been more dramatic or rewarding than that for the detection of phenylketonuria (PKU). As a cooperative program, this service was begun in October of 1964 by the Bureau of Laboratories and Bureau of Maternal and Child Health. The response from most hospitals and physicians was immediate. The primary difficulty encountered in enlisting the participation of others was in accomplishing the change over from the ferric chloride and Phenistix testing of urine to the more sensitive and reliable testing of blood specimens by the Guthrie Bacterial Inhibition Assay. Despite this, our program has now approached its peak, and this year more than 80,000 specimens will be tested.

This article will enumerate the results of the testing procedures to date with some of the problems encountered. In addition, the future application of this type of testing for other inherited amino acid problems will be reviewed.

Dr. Hosty is Director, Bureau of Laboratories; Mrs. Atkins is Director Division of Serology, State Department of Public Health; and Dr. Barrett is Clinical Director, Partlow State School and Hospital.

Before inviting the participation of hospitals and physicians, a preliminary study was made on residents of the Partlow State School for the mentally retarded. The survey revealed 18 individuals with PKU disease, or an incidence of 0.9 per cent of the 2106 inmates tested. The institutional incidence among mental retardates in Alabama is thus comparable with the estimate of 0.5 to 1.0 per cent afflicted with this disease nationally. These percentages are even more significant considering the high Negro population, in whom the disease is extremely rare. Seven of the 18 phenylketonurics were from three families. The ages of the individuals ranged from nine to 51. Guthrie determinations ranged from 20 to 50 mg. per cent while the fluorometric chemical analysis of phenylalanine ranged from 28.6 to 47 mg. per cent. All urine specimens reacted to ferric chloride reagent. This latter finding was expected in these long standing cases. It was not found to be consistent, however, in the infants detected since the program was started. Additional paper chromatographic studies for other amino acid abnormalities were made later from the Partlow blood samples, but findings were not considered satisfactory because of the age of the specimens.

The diagnosis of phenylketonuria is de-





pendent on confirmatory laboratory information, and we consider the following values as essential: The Guthrie test should show a phenylalanine level greater than 20 mg. per cent; fluorometric chemical analysis of capillary blood should be over 20 mg. per cent for phenylalanine with not more than 5 mg. per cent of tyrosine.

Paper chromatographic studies of filter paper blood are routinely made of all suspected cases of PKU. While the information acquired from this procedure is very useful, it has limitations. In a phenylketonuric infant the increased phenylalanine level is evident, but tyrosine, if present, is too faint to be estimated. In the same manner, slightly elevated phenylalanine concentrations (4-8 mg. per cent) would be read with difficulty.

The finding of a positive Phenistix or ferric chloride reaction is a valuable confirmatory test if performed in conjunction with adequate chemical analysis of blood. As stated earlier, in long term phenylketonuria the urine reaction is positive but complete reliance on the urine test to eliminate the possibility of PKU disease in infants, even six weeks after birth, could have tragic consequences. The first two cases of phenylketonuria detected by our laboratory illustrate the deficiencies of urine testing alone.

The first PKU case was found within the first 500 specimens tested. This baby was five weeks old when the blood was collected but failed to produce a reactive urine when tested with ferric chloride reagent. The serum level was 83.5 mg. per cent for phenylalanine. The infant, a sibling of a five year old phenylketonuric child already under treatment, was immediately started on a low phenylalanine diet, and regular blood determinations showed her to be stabilized within an acceptable range. Unfortunately, this child later died from accidental drowning at approximately two years of age.

Case No. 2 was an infant detected within the first 2,500 specimens tested as the result of a routine newborn specimen collected by the hospital on the day the baby and mother were discharged. The urine was non reactive to Phenistix testing before treatment even though the blood analysis showed a phenylalanine level of 63.7 mg. per cent. Serum phenylalanine determinations were made at intervals by chemical methods in order that





the phenylalanine could be maintained at a safe level. Later experience has shown that the Guthrie assay method is sensitive enough for dietary control. The diet was adjusted to keep the blood level between 2 and 8 mg. per cent. This child is responding very well to control measures.

There has been considerable comment on "false positives" or too sensitive reactivity with the Guthrie technique. Our laboratory has found some infants with an increased phenylalanine content who do not have PKU disease. They can be divided into three categories.

Premature infants will, in some cases, show an increased blood phenylalanine. This is usually due to "enzyme immaturity." It is obvious that information as to this prematurity is very essential when sending the specimen.

In the second instance there are infants who show atypical levels. We have found several. Their blood phenylalanine level will vary from eight to 15 mg per cent with less than five mg per cent of tyrosine. Urine tests are invariably nonreactive to ferric chloride. These infants are followed closely at monthly intervals for six months or longer as necessary. If the stationary level is established below 15 mg per cent on continued testing they are not treated but considered atypical.

The third category is most confusing to the physician: i.e. namely those infants with a phenylalanine level of four to six mg per cent. Invariably, the laboratory requests repeated testing at two weeks intervals on such patients. Further tests are requested because, in some instances, such reactors have later been diagnosed as having PKU disease. Obviously, the physician should follow these patients until he is satisfied as to their ultimate status.

During the period we have been testing, we have found seven cases early enough for the physician to institute dietary control. Five more have been detected as phenylketonurics but too late for treatment. Thus, 12 individuals in all were discovered since 1964. While estimates as to the cost of lifetime care for phenylketonurics vary from state to state, this service has saved Alabama at least $700,000. The approximate cost of the program is $30,000 per year. Of course, the pre-

(Continued on Page 1176)

Chances are she'll be fever-free in less than 48 hours...



with Erythrocin®-Sulfas

ERYTHROMYCIN-
TRISULFAPYRIMIDINES,
ABBOTT

FOR RAPID CLINICAL RESPONSE

In a recent series of clinical studies, Erythrocin-Sulfas was used to treat 516 febrile cases of suspected bacterial infection. Of these, *85.5% were completely afebrile within 48 hours.*

FOR WIDE BACTERIAL COVERAGE

Among the total of 661 patients (febrile and afebrile) who could be evaluated, the *clinical cure rate* was 92.2%*

FOR OPTIMAL PATIENT ACCEPTANCE

Three forms were used in the studies, prescribed according to the age and personal preferences of individual patients:

Erythrocin® ethyl succinate-**Sulfas Granules**
erythromycin ethyl succinate-trisulfapyrimidines
for oral suspension

Erythrocin® ethyl succinate-**Sulfas Chewable**
erythromycin ethyl succinate-trisulfapyrimidines
chewable tablets

Erythrocin® stearate-**Sulfas Filmtab®**
erythromycin stearate-trisulfapyrimidines tablets

Please see Brief Summary on next page.

ABBOTT

*Clinically cured included patients with complete symptomatic relief and those who had partial symptomatic relief within 72 hours with subsequent clinical cure.

803446

BRIEF SUMMARY FOR Erythrocin®-Sulfas

Indications For mixed infections which are more susceptible to the combination than to either agent alone. These may include susceptible gram-positive and/or gram-negative mixed infections. Not recommended in the treatment of infections expected to respond to full therapeutic doses of the antibiotic or sulfonamide alone.

Contraindications Known hypersensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, in premature or in newborn infants during first week of life.

Warnings As with other forms of sulfonamide therapy, use only after critical appraisal in patients with liver or kidney damage, urinary obstruction, or blood dyscrasias. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests when used intermittently or for long periods.

Precautions, Side Effects Use sulfonamides with caution in patients with a history of allergy, including asthma. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent; if encountered appropriate countermeasures (e.g. epinephrine, steroids, etc.) should be administered and the drug withdrawn. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. In prolonged therapy, or when high dosage is used, maintain an alkaline urine. If oliguria occurs, discontinue therapy. Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin; generally improved by reduction of dosage.

If overgrowth of nonsusceptible organism occurs, withdraw the drug and institute appropriate treatment.

Adverse Reactions Sulfonamide therapy may be associated with headache, nausea, vomiting, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, urticaria, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria. 803446

ABBOTT

(Continued from Page 1173)

vention of brain damage in treated cases with the resulting chance for living a normal life has a tremendous humanitarian impact.

The medical public health committee of the National Association for Retarded Children has recently urged the testing of all expectant mothers for PKU disease. Authenticated cases of young pregnant women with high phenylalanine blood levels have been recorded. This may result in spontaneous abortion or damage to the brain of the developing fetus. Since all obstetrical patients are usually tested for Rh or venereal disease it is a simple matter to collect a special filter paper specimen for testing by our laboratory. Letters offering to furnish supplies and to test specimens submitted for "Maternal PKU" were sent to state obstetricians.

Ideally an infant should be fed for 48 (preferably 72) hours before the specimen is collected. Because in Alabama a large number of mothers leave the hospital with their newborn infant before this can be accomplished, difficulties are created for everyone concerned. In an effort to assure a valid report in these cases, the laboratory policy is as follows: (1) if the baby has not been fed, or if the specimen is collected the same day feeding is begun, the specimen is considered unsatisfactory, and a repeat is requested; (2) if the infant has fed 24-48 hours and the Guthrie shows a phenylalanine level of 2-4 mg. per cent; a report of these findings is made to the hospital and to the baby's doctor. The doctor is asked to collect another specimen, and a kit is furnished for his convenience. The note of explanation which is included with the report states the phenylalanine level was in the upper limits of normal. Since the baby has fed less than 48 hours and the level may not have had a chance to increase to the true value, another specimen is requested. Unfortunately some of the requests for retesting under these conditions have been interpreted as indicating the finding of a phenylketonuric infant. One of the



frustrating problems of this program is receiving inadequate blood samples. Last year over 400 requests to physicians for retesting were due to the receipt of such poor specimens.

We realize collecting additional specimens creates a problem for attending physicians and results in extreme parental concern. Existing laws concerning PKU testing, however, place the hospital and physician in a precarious position if either should be considered negligent in the performance of these responsibilities.

When new equipment becomes available in the near future, four additional tests for deficient or abnormal enzymes will be performed on the submitted specimen. These will include Homocystinuria (methionine), Histidenemia, Galactosemia, and Maple Syrup Urine Disease. This additional testing will be done on an experimental basis, and accumulated data will decide whether or not such investigation is remunerative.

One of the rewards of our program has been the recent opportunity to observe five of our PKU children who were detected and dieted within the first few days or weeks of life. We hope you will find their pictures which have been included here both interesting and inspiring. The oldest child under treatment is two and a half years old while the youngest is not quite two.

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1968

	Jan.	Feb.	*E. E. Feb.
Tuberculosis	123	140	115
Syphilis	73	66	126
Gonorrhea	469	289	274
Chancroid	2	2	2
Typhoid fever	0	0	0
Undulant fever	0	0	0
Amebic dysentery	0	5	2
Scarlet fever & strep. throat	462	381	137
Diphtheria	0	0	1
Whooping cough	23	18	4
Meningitis	5	10	6
Tularemia	0	0	0
Tetanus	1	0	1
Poliomyelitis	0	0	0
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	14	11	264
Chickenpox	99	124	157
Mumps	102	145	76
Infectious hepatitis	31	28	56
Typhus fever	0	0	0
Malaria	1	0	0
Cancer	367	1,214	587
Pellagra	0	0	0
Rheumatic fever	9	7	16
Rheumatic heart	15	22	31
Influenza	40,821	2,309	2,778
Pneumonia	613	500	333
Rabies—Human cases	0	0	0
Pos. animal heads	4	4	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

Calendar of Annual Meetings

Medical Association of the State of Alabama

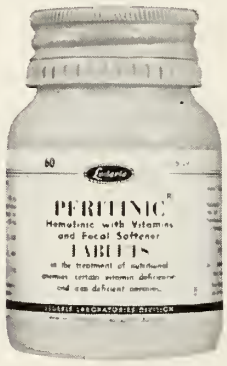
1968, April 18-20, Parliament House, Birmingham

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

anticostive* hematinic



PERITINIC®

Hematinic with Vitamins and Fecal Softener

A tablet-a-day provides:

• Elemental Iron (as Ferrous Fumarate)	100 mg
• Dioctyl Sodium Sulfosuccinate (to counteract constipating effect of iron)	100 mg
Vitamin B_1	7.5 mg
Vitamin B_2	7.5 mg
Vitamin B_6	7.5 mg
Vitamin B_{12}	50 mcgm
Vitamin C	200 mg
Niacinamide	30 mg
Folic Acid	0.05 mg
Pantothenic Acid	15 mg

Bottles of 60

*

anticostive, *adj.* (*anti* opposed to + *costive* causing constipation.) Against constipation. (Now isn't that a good idea in an iron-containing hematinic? We'll send you samples if you'll send a request on your Rx blank, addressed to Department 150.)

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A Division of American Cyanamid Company
Pearl River, New York 10965

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BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

December 1967

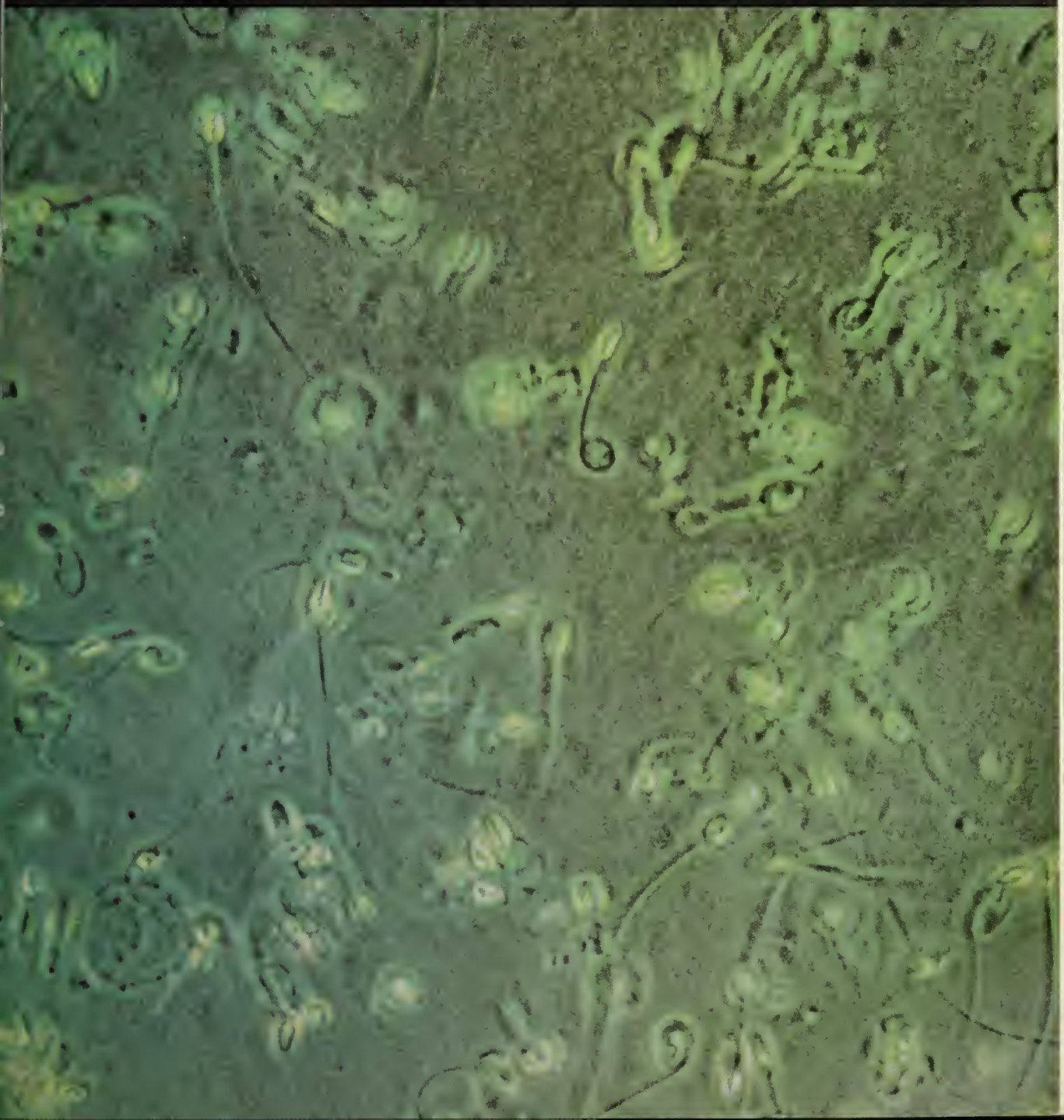
Live Births Deaths Causes of Death	Number Registered During December 1967			Rates* (Annual Basis)		
	Total	White	Non-White	1967	1966	1965
Live Births	5,295	3,406	1,889	17.5	18.6	20.3
Deaths	3,059	2,021	1,038	10.1	9.3	10.0
Fetal Deaths	115	57	58	21.3	18.9	17.2
Infant Deaths—						
under one month	91	44	47	17.2	22.0	18.0
under one year	154	62	92	29.1	33.0	34.3
Maternal Deaths	6	3	3	11.1	3.5	3.3
Causes of Death						
Tuberculosis, 001-019	23	11	12	7.6	5.7	7.1
Syphilis, 020-029	9	4	5	3.0	0.7	1.4
Dysentery, 045-048						
Diphtheria, 055	1		1	0.3	0.3	0.3
Whooping cough, 056						
Meningococcal infections, 057	4	3	1	1.3	1.3	0.7
Poliomyelitis, 080, 081						0.3
Measles, 085						
Malignant neoplasms, 140-205	433	316	117	143.1	119.0	119.8
Diabetes mellitus, 260	60	32	28	19.8	22.1	19.6
Pellagra, 281						
Vascular lesions of central nervous system, 330-334	384	250	134	126.9	123.0	138.4
Rheumatic fever, 400-402	1		1	0.3	0.7	0.3
Diseases of the heart, 410-443	1,061	755	306	350.6	295.6	321.1
Hypertension with heart disease, 440-443	123	48	75	40.6	34.4	42.0
Diseases of the arteries, 450-456	61	42	19	20.2	20.1	23.3
Influenza, 480-483	12	6	6	4.0	1.0	1.4
Pneumonia, all forms, 490-493	112	64	48	37.0	34.4	45.0
Bronchitis, 500-502	11	8	3	3.6	3.0	3.4
Appendicitis, 550-553	2	1	1	0.7	1.3	0.7
Intestinal obstruction and hernia, 560, 561, 570	13	10	3	4.3	3.3	5.4
Gastro-enteritis and colitis, under 2, 571.0, 764	1		1	0.3	2.3	2.7
Cirrhosis of liver, 581	24	19	5	7.9	7.4	8.8
Diseases of pregnancy and childbirth, 640-689	6	3	3	11.1	3.5	3.3
Congenital malformations, 750-759	25	21	4	4.7	5.2	6.2
Immaturity at birth, 774-776	20	8	12	3.8	5.4	4.3
Accidents, total, 800-962	187	140	47	61.8	83.6	87.3
Motor vehicle accidents, 810-835, 960	97	82	15	32.1	44.8	42.3
All other defined causes	431	258	173	142.4	133.4	133.3
Ill-defined and unknown causes, 780-793, 795	178	70	108	58.8	50.5	62.6

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population

When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg ē mestranol 0 05mg)

Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of NORINYL-1 (norethindrone 1 mg. with mestranol 0.05 mg.) in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with NORINYL-1. Therefore, if such tests are abnormal in a patient taking NORINYL-1 it is recommended that they be repeated after the drug has been withdrawn for two months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibromyomata may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. 5. NORINYL-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, and as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged NORINYL-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving NORINYL-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. 11. Because of the effects of estrogens on epiphyseal closure, NORINYL-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with NORINYL-1 may mask the onset of the climacteric. 13. The pathologist should be advised of NORINYL-1 therapy when relevant specimens are submitted.

Side effects observed in patients receiving oral contraceptives: The following adverse reactions have been observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretion, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression.

Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, change in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching.

The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has been neither established nor disproved): thrombophlebitis, pulmonary embolism, neuro-ocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, Factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

norethindrone — an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF

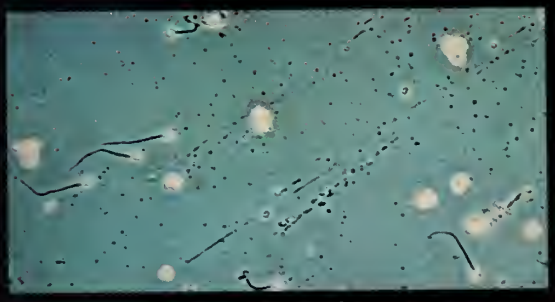
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

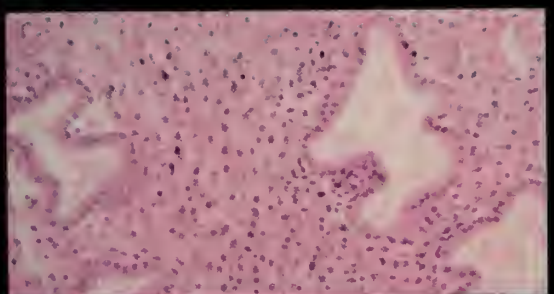
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.



Spermatozoa appear healthy, active, freemoving.

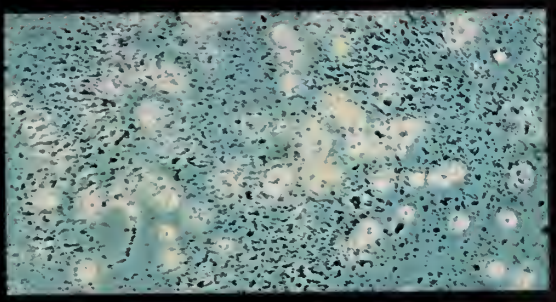


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

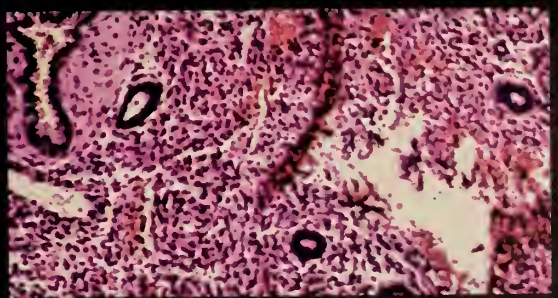
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



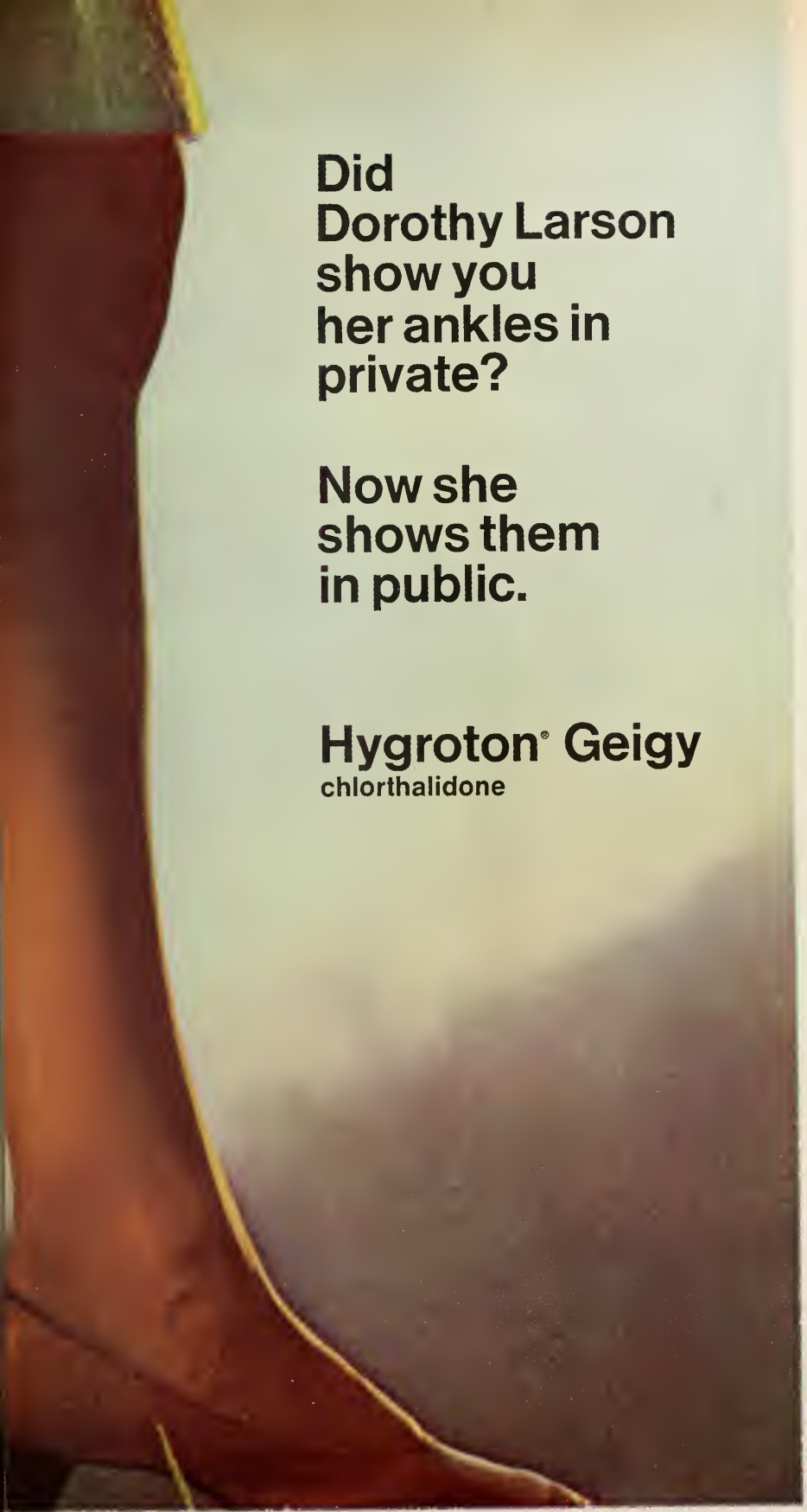
Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

Norinyl®-1 tablets
(norethindrone 1mg. c mestranol 0.05mg.)

- new low dose of time-proved ingredients
- established norethindrone/mestranol ratio
- lower patient cost



Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Use with caution in pregnant patients, since the drug may cross the placental barrier and adverse reactions which may occur in the adult (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn.
Precautions: Antihypertensive therapy with Hygroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents or other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Barbiturates, narcotics or alcohol may potentiate hypotension. Because of the possibility of progre sion of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN ris or liver dysfunction is aggravated Hepatic coma may be precipitate Electrolyte imbalance, sodium ar or potassium depletion may occu If potassium depletion should oc cur during therapy, Hygroton sho be discontinued and potassium supplements given, provided the



Did Dorothy Larson show you her ankles in private?

Now she shows them in public.

Hygroton® Geigy
chlorthalidone

Your office examination confirmed Mrs. Larson's ankle edema.

You prescribed Hygroton—to get rid of the edema.

And you found that Hygroton is not only effective; it frequently costs less than other equivalent therapy.

A nice way to treat the Mrs. Larsons in your practice.

Hygroton therapy may mean troublesome side effects for some patients. A summary of the prescribing information is shown below.

t does not have marked oli-

pecial care in cirrhosis or ischemic heart disease and ents receiving corticoste- ACTH, or digitalis. Salt re- on is not recommended.
se Reactions: Nausea, gastric on, vomiting, anorexia, con- on and cramping, dizziness, ess, restlessness, hypergly- , hyperuricemia, headache, e cramps, orthostatic hypo- tension, aplastic anemia, leuko- penia, thrombocytopenia, agranu- locytosis, impotence, dysuria, transient myopia, skin rashes, urti- caria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions re- ported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization.
Average Dosage: 50 or 100 mg. with breakfast daily or 100 mg. every other day.
Availability: White, single-scored tablets of 100 mg. and aqua tablets of 50 mg., in bottles of 100 and 1000.
(B)R46-230-D
For full details, please see the complete prescribing information.

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York 10502

HY-5576 R

Some U.R.I. patients are more miserable than others.

That's why we make Novahistine® tablets in two different formulations.

And let you control the dosage.



Each Novahistine LP tablet contains phenylephrine hydrochloride, 25 mg.; and chlorpheniramine maleate, 4 mg.
Each Novahistine Singlet tablet contains phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.; and acetaminophen, 500 mg.

With Novahistine LP tablets and Novahistine Singlet™ tablets you have the range and flexibility of decongestant dosage that lets you prescribe for the needs of the individual patient.

Novahistine LP tablets are most useful for relief of nasal congestion in patients without pain or fever. Novahistine Singlet tablets, which provide analgesic-antipyretic effect, as well as decongestant action, are indicated for upper respiratory infections accompanied by pain, aches and fever.

Whether you prescribe Novahistine LP or Novahistine Singlet, a total daily dose of 3 or 4 tablets will usually provide effective, continuous relief.

Use cautiously in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

DOW **PITMAN-MOORE** DIVISION OF THE DOW CHEMICAL COMPANY, INDIANAPOLIS



"Nothing else I've tried seems to work, so I decided to give you a crack at it."

Dr. Guenter Corssen Heads Anesthesiology Department

Dr. Guenter Corssen has been appointed professor and chairman of the Department of Anesthesiology at the Medical College of Alabama. His appointment, effective April 1, was announced by Dr. S. Richardson Hill, Jr., Medical College dean.

Dr. Corssen is presently professor of anesthesiology at the University of Michigan Medical School, Ann Arbor.

Born in Bremen, Germany, Dr. Corssen received his medical degree from the University of Hamburg Medical School in 1950, and subsequently served an internship and a year of residency in obstetrics and gynecology at the University of Hamburg Hospitals. Then Dr. Corssen came to the United States for a residency in anesthesiology at the University of Texas Medical Branch, Galveston, 1952-54, and later served on its faculty until accepting an appointment at the Michigan Medical Center.

Dr. Corssen, during the past several years, has been investigating the clinical application of a drug which, once injected into a muscle or vein, rapidly produces general anesthesia lasting 10 to 20 minutes. This drug has received attention for its applications in oral surgery, burn care, procedures in otology (the ear), and simple office surgical procedures; it has proved to be highly effective on children.

Simultaneously Dr. Corssen has been exploring "neurolept" analgesia, a new approach to the control of pain during surgical procedures. This technique allows for selective depression of various areas of the central nervous system which are responsible for pain perception and pain conduction. Total depression of the brain and other vital organs of the body is avoided, and no undesirable side effects have been noted. Preliminary findings indicate that Dr. Corssen's method is especially advantageous for older, high-risk patients who must undergo major surgery.

Dr. Hill said the appointment is "highly significant to many programs of education, patient care and research at the Medical Center."



Dr. Guenter Corssen

A Diplomate of the American Board of Anesthesiology, Dr. Corssen holds memberships in the International Anesthesia Research Society, the American Society of Anesthesiologists, the New York Academy of Sciences, the American Medical Association and the American Association of University Professors, plus other specialty and scientific organizations.

In addition to having authored or coauthored over 60 articles published in both American and German professional journals, Dr. Corssen has received several national awards for scientific exhibits before the annual meetings of both the American Medical Association and the American Society of Anesthesiologists. He is also credited with the preparation of eight scientific movies dealing in the fields of anesthesiology, cardiovascular surgery and pharmacology.

Dr. Rodolfo R. Allarde, assistant professor of anesthesiology at the Medical College of Alabama, has been acting departmental chairman.

Man and Microbes

Two centuries after Columbus discovered America, a linen merchant, Anton van Leeuwenhoek, discovered not just another "new world" but virtually a new universe. Without journeying any further than his workshop, this self-educated Dutchman assembled the first microscope and brought into view minuscule realm of microorganisms.

While intriguing, this discovery did not overly impress 17th century scientists. After all, they pointed out, how could anything so insignificant as the "animalcules" described by Leeuwenhoek affect something as imposing as man?

Another 200 years were to lapse before it was made clear just where microorganisms fit into the scheme of things. Then the work of such men as Pasteur showed that far from being insignificant, microorganisms helped mold the very patterns of life. Without its "lowly" one-celled forms of life the earth would be barren. Higher forms, such as man, could not have evolved.

The nub of life is the cell, and although cells may come in almost innumerable shapes and sizes, all are fundamentally similar. Thus the ameba—a cell that can "go it alone" —has much in common with that colony of cells known as man. They may, in fact, have sprung from a common primordial ancestor.

Ancient kinship notwithstanding, there is an ancient antagonism. For plants and animals in their most minute form often find their prey among the cells of larger more complex plants and animals. Regardless of size or stature, the basic law of life is to exist and multiply. And if in obeying this law some microorganisms decimate man with infectious disease, only man really cares.

Actually the microbial parasites to which man plays unwitting host are not invariably dangerous. In many, perhaps even most, cases man and invasive microbes have been living together so long that they have acquired a certain amount of tolerance for each other so have arrived at a truce.

This arrangement, although fitful at times, is not without mutual benefits. Certain bacteria inhabiting our intestinal tract, for instance, have learned during eons of togetherness to become quite useful, fermenting food for digestion and manufacturing vitamins. In turn, man produces no antibodies to dislodge them from their snug protected home.

Even when mutual adaptation doesn't go to such extremes a little infection can often be a good thing—serving as a sort of natural immunization program. Thus before there ever was a Salk or Sabin vaccine most adults were already immune to polio. Obviously, they had acquired a mild infection early in life that failed to produce raging disease but did produce antibodies capable of resisting further invasions by the polio virus. The same is true for tuberculosis and many other diseases.

The existence of a truce, however, does not always guarantee peace with disease-causing parasites. Sometimes the restraints that make the truce binding are removed—perhaps by a functional breakdown of the body's defense mechanisms—and a s u p p o s e d l y "tame" virus turns virulent. Or perhaps a biological catastrophe serves to upset the balance—an appendix ruptures and the normally placid bacteria of the intestine swarm into the body cavity to set up a dangerous infection.

Furthermore, there are other microbial pathogens (disease-causing microorganisms) which for one reason or another remain antagonistic to man. Some, like the rabies virus, may be so deadly that no truce is possible.

Others, it seems, live in a world apart—strangers to the human environment except

A Science Feature Article prepared by the Communications Division, American Medical Association.

for infrequent brushes. Man, for example, is not the usual host for the pathogens of viral encephalitis, jungle yellow fever, and plague. More properly these diseases belong to birds, monkeys, and rodents (in that order), the normal victims of the mosquitos and fleas that spread the disease organisms. But insects are myopic and man sometimes gets bitten by mistake.

Still other pathogens appear to be new on the evolutionary scene. Since microbes multiply rapidly, often giving rise to a whole new generation in a matter of minutes, genetic mutations occur much more frequently than in higher forms of life. The Asian flu epidemics that circled the globe virtually unchecked in 1957 and again in 1960 are believed to be the work of a mutant form of an older, more docile flu virus. In the case of the old virus it had made the rounds so often that the population as a whole developed a measure of immunity from previous infections. But no such immunity existed to the mutant strain. Being new, there had been no opportunity for mutual adaptation or natural immunization processes to get to work.

Whether disease is caused by one of these "wild" pathogens or by a "tame" one removed from restraint, one thing is quite clear. Microbial infections are an inherent part of human life. True, the over-all danger of infectious disease has been reduced since the days of Lister and Pasteur. Many pathogens have been rendered relatively impotent by vaccines and drugs. Others have been engineered out of our environment by sanitation measures and pest control.

But while the dangers may be less, there doesn't seem to be less infectious disease. Several authorities have pointed out: "The total human load of disease produced by microbial parasites has been only moderately, if at all, decreased." As quickly as one microbe is arrested another seems to arise to take its place. Penicillin has largely elimi-

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nated bacterial pneumonia but now viral pneumonia appears to have become more troublesome. Furthermore, while penicillin may be lethal to a certain strain of bacteria, it also seems to provide the wherewithal for a drug-resistant strain to evolve—often, as in the case of "staph" infections, with dire results.

In any event, medicine's war with the microbes has not gone as well as was being predicted two decades ago when antibiotics were new. The eccentricities, enigmas, and plain whimsies of the microbial world have served as a smokescreen behind which the little mechanisms of disease hide many of their infectious secrets.

Of course merely bringing man and microorganisms together does not make disease inevitable. There are other factors to be considered. For one thing, organisms must have a proper introduction to their host. You can swallow a flu virus with impunity or rub it into a wound; but beware if you inhale the thing! Secondly, there must be enough disease organisms present to overwhelm the body's natural defenses—at least for a time. Otherwise the invaders will be overwhelmed before disease is produced.

Actually, only the final disease determinant is wholly up to the microorganism. That is the matter of virulence and invasiveness. Does the microbe have a parasitic affinity for the host and/or host cells? Is it able to initiate and maintain an infection damaging to the host?

There are organisms that can satisfy these disease-causing criteria in all walks of microbial life—although not all microorganisms are pathogens. Bacteria and viruses are probably the best known; but there are also protozoa, yeasts and molds, rickettsiae and pleuropneumonia-like organisms (PPLO), or simply "L" forms. Interspersed with these

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are microorganisms which defy classification. Some are not quite plants and not quite animals but apparently something in between. Others appear to be in a transitory stage between mere chemical molecules and living cells—a form which probably preceded the first true life on earth.

What are these microscopic mechanisms of disease—these infinitesimal fauna and flora more deadly than all the man-eaters that have ever stalked the jungle—really like? Let's take a closer look.

Protozoa: The largest and most complex of all microbial pathogens are the protozoa. Although each is only a single cell, each cell is a complete animal. To say that they are the most primitive animals and let it go at that, however, is to distort the picture. For protozoa display an astounding ability to get along in the world, something they've been doing far longer than any other animal on earth.

Without organs—heart, liver, and brain—and lacking even such tissues as nerves and muscles, protozoa nevertheless are highly sensitive creatures. They are quite choosy about what they eat—despite a very effective process for ingesting, digesting, and storing food. Like man they react readily to such stimuli as heat, chemicals, gravity, electricity, and light. Most can move about with ease and will recoil from hard objects. Some even have an active sex life—although the more usual method of reproduction is by cell division. Such are just a few of the marvelous possibilities contained within a single microscopic droplet of protoplasm.

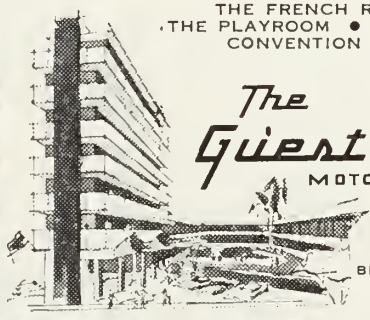
Not so marvelous, from the standpoint of man's health, is the fact that some protozoa feed on human cells. Several types of ameba attack the intestinal wall. The result may be ulcers (amebic dysentery) or a perforated intestine, in which case peritonitis from bacterial infection can be expected.

Probably the most vicious of the disease-causing protozoa are the malaria parasites—an animal species so dangerous that the World Health Organization has mobilized to make it as extinct as the passenger pigeon. More people in the world have malaria than any other single disease.

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Yeasts and Molds: Along with primitive animals primitive plants—yeasts and molds—also sometimes find a man a sumptuous place to take "root" (although strictly speaking these microscopic fungi have no root systems).

The difference between yeasts and molds seems to be more a matter of structure than composition. Yeast cells are usually smooth and round, each cell dwelling independently. Molds, on the other hand, generally have hair-like filaments and grow in tangled masses often forming large visible colonies. Even so, the two organisms are quite similar and some fungi can grow in either yeast or mold form depending on temperature, nutrition, and other environmental factors.

Yeasts and molds are among the most

(Continued on Page 1195)



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common forms of life. They and their spores, or seeds, powder the earth and contribute to the dust above it. Little wonder then that they spawn some of the most common infectious diseases—ringworm and athlete's foot—as well as some of the most dangerous, including North American blastomycosis. Highly fatal if untreated, this disease is caused by a yeast-like organism. The pathogen apparently gains entrance through the respiratory system, but can spread through the human system attacking organ after organ, including the brain.

Offsetting the harmful nature of some yeasts and molds are the beneficial traits of others, which make our bread rise, our beer ferment, and which have given us several antibiotics to kill off still other microorganisms.

Bacteria: Other members of the fungi family are bacteria. Although among the least of all plant life in terms of size and evolutionary advance, they are foremost in terms of vicious reputation. Nor do they take a back seat to any other plant, including the giant sequoia tree, when it comes to the sophisticated business of survival. In this they exhibit extraordinary talent.

You can find bacteria dusting the eternal snows of high mountains with pastel pink or growing in bubbling geyser springs at temperatures near boiling. They will often thrive whether or not free oxygen and food as we know it are present. And when conditions arise that are not to their liking they can cease growth and go into what seems to be complete suspended animation. In this state they can weather years of extreme drought, cold intense enough to liquify hydrogen, searing heat that would coagulate blood, pressures comparable to those found deep beneath the earth and a vacuum approaching the nothingness of space.

There are 1600 or so species of bacteria, although only a small number of these cause disease. In shape they may be spherical, rod-like, or spiraled in cork screw fashion. In size they are inconceivably small, measuring no more than 1/50,000 of an inch in diameter. A cubic inch would hold as many medium-sized bacteria as there are stars in a hundred thousand galaxies—about 10 trillion.

Many bacteria, although they are definitely plants, sprout long filaments known as flagella, which they use to swim about. Most are surrounded by a gummy capsule or slime layer which apparently constitutes their outermost defenses.

Beneath the capsule, if it has one, comes the rigid (though porous) cell wall—and beneath this is a sack-like cell membrane which has the important function of screening all substances that go into or out of the cell. Finally there is the living protoplasm of the cell itself and the all-important nucleus.

While science can dissect and describe bacterial culprits, determine what diseases they are responsible for, and often prescribe the drug that will eliminate them, as yet science can't always say how they go about the insidious process of making us sick.

Bacteria are not, for the most part, parasites inside the cell. Rather they exist in the spaces between cells. But if this is true, how do they kill cells and so cause disease?

Sometimes bacteria seem to rob body cells of nutrition and thus set the stage for their demise. In other cases, pus and debris created by the body's battle with invading bacteria may suffocate tissue cells.

Broadly speaking, however, bacterial diseases are usually the result of poisoning. Some poisons, known as exotoxins, are secreted by the bacteria. Others, known as endotoxins, are contained within the body of the bacterium and seem to be a part of the bacterium itself.

Far stronger than arsenic, strychnine, or cobra venom, exotoxins include the most potent poisons known to man. A needle dipped in tetanus bacteria exotoxin could kill

several persons; and a thimble full of the poison produced by the bacteria responsible for botulism (a type of food poisoning) would be enough to wipe out most of the occupants of New York City.

Why certain bacteria produce exotoxins is not entirely clear. Of those which do, however, many either lack capsules entirely or have very thin ones. Thus the exotoxins may be compensation for the protective capsules worn by most bacteria. If so, exotoxins serve their masters well. In fact, without them, the bacteria would not be able to survive for they would not be able to spread infection.

Some exotoxins kill white blood cells in the hosts—cells which otherwise would consume the pathogen. Others of these poisons have clot-digesting qualities which enable the pathogen to enter the blood stream and invade distant tissue. Some are able to dissolve scar tissue which otherwise would encapsulate the bacteria and prevent their spread.

One of the best examples of an exotoxin is an enzyme called hyaluronidase, often referred to as a "spreading factor." Hyaluronidase, produced by several different microorganisms, has the ability to destroy the cementing substance which holds animal tissues together and so allows the pathogen to spread freely in the spaces between cells.

Endotoxins are of a different order. Since they are a part of the microbial cell itself, they are harmless as long as the cell remains intact. But let the bacterium be broken down—perhaps by the host's own defensive system—and the endotoxins are set free to go about their poisonous business.

Most endotoxins are fats and carbohydrates of the capsule or bacteria wall, but some also come from the cellular protoplasm.

Although not nearly so poisonous by themselves as exotoxins, endotoxins nevertheless can create considerable havoc. Often they destroy blood cells or paralyze the production of phagocytes—specialized cells which have the ability to ingest or destroy infectious microorganisms. In this fashion some bacteria prepare the way for other infections, particularly by viruses. For example, the presence of endotoxins from a certain strain of bacteria which has little infectious ability can cause an otherwise mild viral disease—swine influenza—to become a devastating scourge.

But this is only one facet of endotoxins. There are many others. As Ivan L. Bennett, Jr., M. D., of the Johns Hopkins University School of Medicine, has pointed out, endotoxins can also affect structure and function of numerous organs and cells, alter tissue and blood chemistry, raise or lower body temperature, cause hemorrhage or increase blood coagulation, cause or prevent shock, modify glandular function, and even destroy tumors. Yet the mechanism by which all this is accomplished remains largely unknown.

PPLO: Closely related to bacteria are the pleuropneumonia-like organisms. Indeed, so close is the resemblance that the two may actually be similar organisms existing in different states.

The first such microbe was discovered in 1898 in cattle with a disease called pleuropneumonia and was promptly labeled pleuropneumonia organism, or simply PPO. A few years later, similar organisms were found in connection with other diseases—including some which affect man—and the name pleuropneumonia-like organisms (PPLO) evolved.

Since then it has been shown that bacteria stripped of their capsules and cell walls will continue to exist and reproduce as long as conditions are right and the cell membrane remains intact. These are called "L" forms. It is now generally believed that PPLO's and "L" forms are identical—in other words, bacteria that have lost or failed to form their cell walls.

(Continued on Page 1198)

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(Continued from Page 1196)

There are several ways this might happen. It may be due to a genetic mutation, a nutritional deficiency or the action of antibiotics, toxins or other chemicals. Some PPLO's seem to get along quite well without their jackets and continue to flourish as "L" forms. Others revert as quickly as possible to their original status as bacteria by growing a cell wall and exuding a capsule.

The disease-breeding abilities of PPLO's and "L" forms are only beginning to be understood. One, the "Eaton agent," which at first was thought to be a type of virus, is a cause of pneumonia. Others seem to be associated with rheumatic or arthritic diseases and respiratory and urinary tract infections, and may possibly be implicated along with viruses in leukemia.

Rickettsiae: Further down the scale of disease-causing organisms—in terms of size but not necessarily in terms of infectious ability —are the rickettsiae. In some ways they resemble small bacteria; in other ways they resemble large viruses.

Actually rickettsiae form an intermediate group both in size and biological activity. They lack many of the more complex structures and organic chemicals of the bacteria yet unlike viruses are a complete cell with cell wall, protoplasm, nucleus, and the ability to carry out basic life functions.

Strictly speaking, rickettsiae are probably parasites that live in insects and get transmitted to higher animals accidentally by the bite of infected fleas, ticks, lice, or mites. Several types of typhus, Rocky Mountain spotted fever, Q fever, and rickettsialpox thus find their way into human hosts.

Viruses: All at the same time, viruses are the smallest, most virulent, and most enduring of pathogens. Except in a few isolated cases they are resistant to drug therapy so that medicine's best weapon against them is prevention—primarily with vaccines. But not all viruses lend themselves to prevention,

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and sometimes a vaccine is only a little less dangerous than the virus disease it's supposed to prevent.

The difficulty in coming to grips with virus disease is twofold. In the first place, viruses are not quite alive. They may give the appearance of a very minute cell, yet they carry on no metabolic activity such as eating or breathing. This brings up the question: How do you get such an entity (they're not organisms) to "swallow" a dose of medicine that will kill it, as bacteria "swallow" penicillin? The answer is you don't—not yet.

Only within a susceptible cell does a virus become active and so, possibly, vulnerable to attack. But a virus doesn't just exist within a cell it has infected; it becomes incorporated with the cell, an integral part of the cell structure. This gives rise to the second problem. The only way to kill a virus that has become infective is to kill the cell too. And a drug that will kill infected cells will also kill non-infected ones—a state of affairs hardly conducive to the practice of good medicine.

If a virus, strictly speaking, isn't a living organism, what is it?

At times some viruses form crystals—a distinct property of chemicals. Furthermore, a small virus, 1/10,000 the volume of a small bacteria, approaches in size that of some of the larger organic molecules.

And yet viruses are not mere molecules either. Their form and composition alone indicate they have something in common with the world of the living.

Perhaps the best answer to the question "What is a virus?" was supplied by one august authority who said: "A virus is a virus." What he meant is that viruses are unique; that they occupy a separate kingdom in the void between life and non-life.

Structurally, a virus is a little bit of genetic material—a few genes composed of nucleic acid—enveloped in a protein coat. This coat seems to be largely protective in nature. It can be stripped away by laboratory methods without affecting the infectious abilities of the virus. Conversely, if the right protein is made available the naked viruses will readily reclothe themselves.

In a sense then viruses are independently existing genes. And as such they are parasites without peers.

The only real difficulty they seem to have is finding the proper host—preferably one without antibodies—and then finding the proper cells of the host to infect. In this viruses are very selective.

Whether they ever find their prey seems to be strictly a matter of chance. But protected by protein armor, infinitesimal size, and lack of metabolism, viruses are able to bump around for quite a while in search of a susceptible cell.

Once a susceptible cell has been found, the virus either attaches itself to the cell wall or is absorbed by the cell. Then it disappears. Perhaps an empty protein jacket is left hanging on the cell wall; perhaps not. But the

(Continued on Page 1200)

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN,TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

Lederle

330-8/6135

(Continued from Page 1199)

virus itself is gone as if digested by the comparatively huge organism it has stumbled into.

In a short time, however, it becomes obvious that the virus hasn't been captured but rather has done the capturing. For the cell gradually stops its normal function and instead turns to the manufacture of viruses identical in every way, including protein jackets, with the virus that was engulfed. Indeed, the cell often produces so many viruses that eventually it bursts, spewing out mature viruses that will infect other susceptible cells.

The whole cycle, from the time a virus buttonholes a cell to the time when a new swarm of viruses is on its way, often takes less than half an hour. But what happens during these few minutes is not entirely clear. It appears, however, that after becoming attached to or absorbed by a cell, the nucleic acid forming the virus core merges with the nucleic acid of the cell. This mingling of a few molecules of quite similar substance works a dramatic change. For what has occurred is that the cell, like it or not, has in effect suddenly acquired some new genes—genes that alter its whole destiny.

Why a cell should accept the "gift" of virus genes we do not know. Perhaps the cell cannot refuse, which is what makes it a susceptible cell in the first place. In any event, it does not refuse, and thereby seals its fate. For no matter whether genes are acquired from a virus or inherited from a parent, the cell is no more capable of revolting against their dictates than the moon is of revolting against the laws of gravity. So when the acquired genes—either on their own or in concert with the cell's inherited genes—order the manufacture of viruses, the cell can only comply. It is driven to consume its own protoplasm to make viruses; and in the process commits suicide.

There is one consolation, however. If enough viruses are produced they will, in turn, stimulate the production of antibodies that in time may destroy the invaders . . . providing all goes well.

Fortunately, our defenses are usually strong. Infections are many; thousands occur each day in every one of us. Yet diseases are relatively few.

Still, there can be no escaping the microbes whether they be pathogenic animals, infective vegetables, or a few genetic molecules. For man cannot live in a sterile atmosphere and manage to survive for long. He can only follow along after Leeuwenhoek, peering further and further into the universe of the ultra-small until somewhere down among the molecules and atoms he comes upon the secret of life. Perhaps then he will begin to understand how finally to destroy disease.

Continuing Professional Education

Are you eagerly seeking a continuing professional education program which will prove mutually beneficial to you and your patients? A 24-page brochure, produced last June by the AMA, provides brief descriptions of continuing professional activities sponsored by such organizations as the American Heart Association, the National Tuberculosis Association, The Arthritis Foundation and the American Cancer Society, to name a few.

This enlightening booklet, entitled "Continuing Professional Education Programs of Voluntary Health Agencies," also summarizes the American Medical Association's role of national leadership in continuing medical education for physicians. Detailed information may be obtained by contacting either the specific agencies listed or their local affiliates.

To secure a complimentary copy, simply direct your request to the AMA Council on Voluntary Health Agencies, 535 North Dearborn Street, Chicago, Illinois 60610.

New Film Available

Introduced less than two years after its paperback counterpart, "Horizons Unlimited," the AMA's most recent film contribution in the constantly expanding area of health careers, is now available for booking. Created to familiarize young adults with the wide range of rewarding career opportunities in medicine and allied fields and emphasize the ever-increasing need for trained health personnel, it is provided complimentarily except for return postage.

This 16 mm, sound-color production replaces the now-obsolete film, "Helping Hands for Julie." It features approximately 12 specific health career fields and is about 28 minutes in length. School and non-medical groups may secure a print from Modern Talking Pictures, Inc., Prudential Plaza, Chicago, Illinois 60601. Physicians and auxiliary members should contact the AMA Medical Film Section, 535 North Dearborn, Chicago 60610.



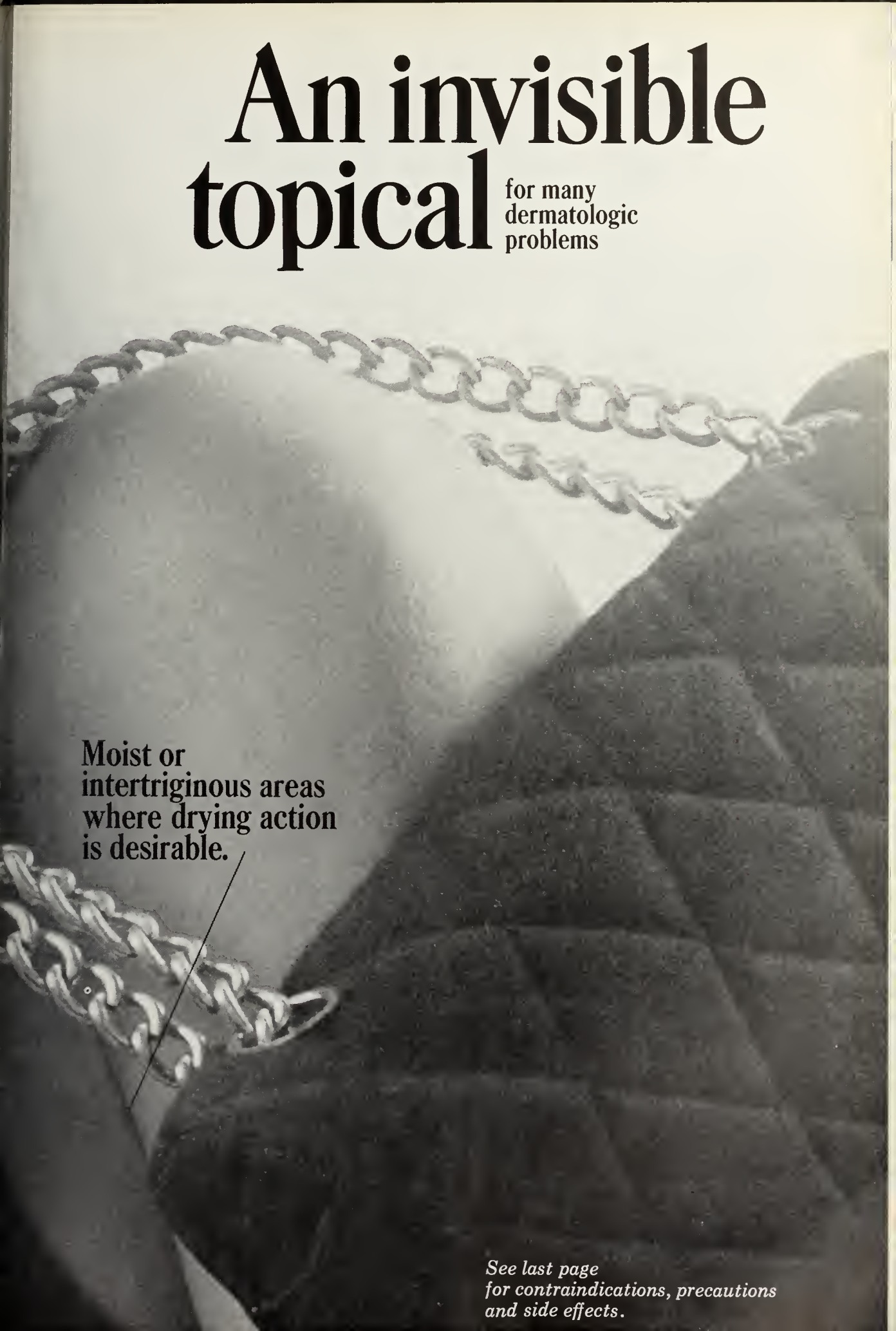
This scene from the AMA's new health careers film, "Horizons Unlimited," shows a therapeutic nutritionist discussing diet regimen with a diabetic patient. More than a dozen health professions are highlighted in the 28-minute film.




Hairy sites where creams and ointments do not spread or penetrate readily.
Exposed areas where cosmetic considerations are important.

An invisible topical

for many dermatologic problems



See last page for contraindications, precautions and side effects.

Structurally unique topical steroid in propylene glycol vehicle produces rapid response in many dermatoses.

Synalar Solution produces rapid antiinflammatory, antipruritic action through its unique topical corticosteroid, fluocinolone acetonide. The propylene glycol vehicle provides additional benefits for therapy at problem sites where it is difficult to achieve contact between the lesion and medication—or where creams or ointments may make the lesions worse. Synalar Solution has proved particularly valuable in the symptomatic treatment of seborrheic dermatitis of the scalp, nasolabial folds, eyebrows, ears, and in flexural folds such as the axillae, inframammary, umbilical and anocrural areas. It has also been reported to achieve excellent results in the adjunctive management of atopic dermatitis, contact dermatitis, neurodermatitis, nummular eczema, psoriasis, and sweat retention syndromes in these problem sites.

Penetrates the hairy sites.

In many areas of the body, hair gets in the way of treating the underlying dermatitis. The propylene glycol vehicle of Synalar Solution permits penetration and dispersion at sites where creams and ointments do not readily penetrate. May be applied without matting of hair.

Ideal for moist or intertriginous areas.

Propylene glycol is strongly hygroscopic and is especially useful where sweat retention i a problem. Its low surface tension permits easy spreadability in difficult-to-treat bod areas. A number of studies have also shown that propyle glycol has inherent antimicrobial activity.



Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components.

Precautions: In some patients with dry lesions, the solution may increase dryness, scaling, or itching. Application to denuded or fissured areas, such as genital or perianal sites, may produce a burning or stinging sensation. If this persists and dermatitis does not improve, discontinue medication. Although propylene glycol has antiseptic activity, there should be careful initial evaluation and follow-up of infected sites. Incomplete response or exacerbation of lesions may be due to true infection, which requires susceptibility testing and appropriate therapy. On the other hand, saprophytic or low grade infections may clear spontaneously under the influence of Synalar Solution alone. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time.

Side Effects: Side effects are not encountered ordinarily with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions.

Availability: Synalar (fluocinolone acetonide) Solution 0.01% in a propylene glycol vehicle with citric acid as preservative. 20 and 60 cc. plastic squeeze bottles. *Also available:* Synalar (fluocinolone acetonide) Cream 0.025% —5, 15 and 60 Gm. tubes and 425 Gm. jars. Cream 0.01% —15, 45 and 60 Gm. tubes and 120 Gm. jars. Ointment 0.025% —15 and 60 Gm. tubes. Neo-Synalar® (neomycin sulfate 0.5% [0.35% neomycin base], fluocinolone acetonide 0.025%) Cream —5, 15 and 60 Gm. tubes.

fluocinolone acetonide — an original steroid from

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LABORATORIES INC., PALO ALTO, CALIF.

Synalar®
(fluocinolone acetonide)
Solution
0.01%

An invisible topical



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Drug Addiction . . . A Crime or a Disease?

Each day at least 45,000 Americans reach for oblivion in a heroin-filled hypodermic needle or a marijuana-packed cigarette.

They are, in the language of their unreal world, "hooked"— utterly unable to face life except through the screen of a narcotic-induced fog.

Addiction begins easily, pleasantly. A few grains of narcotics and the humdrum world fades into a wonderland. "When you're high on dope everything's a ball," explained one young addict. "Even telephones poles are funny."

But addiction ends hard; usually in pain and isolation, sometimes in death. After a while there is no more bliss in a needle, only a craving that can never be satisfied.

From the medical standpoint the addict is a sick individual. He needs hospitalization and care if he is to get off and stay off drugs. Yet, in the eyes of the law, such a person at best is a quasi-criminal. Possession of narcotics is illegal under federal statutes—and it's almost impossible to be an addict without narcotics. But while federal law does not consider addiction itself a crime, many states do, even when the addict is not in possession of drugs when arrested.

The argument about whether an addict should be handled by wardens or doctors has been going back and forth for many years. In the past neither approach has proven adequate.

The control of drugs and addiction became a police matter in 1914 with the passage of the Harrison Narcotic Act. After that, capture with the paraphernalia of the drug habit meant jail for the addict. And to the addict, jail means physical torture. When the drugs his body has grown to demand are abruptly stopped, he goes into "withdrawal." His muscles knot in severe cramps, he twitches, vomits; light and noise send him into fits of pain; he loses all control.

The fear of arrest and its aftermath has tended to reduce some forms of addiction over the past half century. Yet it has never supplied a remedy.

Despite its "tough" laws, the United States today still has a drug addiction problem unique in the Western world, and is the chief market for illegal narcotics. Traffic in dope costs our citizens $500 million annually—mostly in property stolen by addicts to buy satisfaction for their cravings.

On the other hand, initial attempts to deal with addiction through health service clinics were not effective either. Between 1919 and 1923 about 44 clinics were set up in various cities to supply drugs to addicts who could no longer get narcotics in the clamp-down after passage of the Harrison Act. Many addicts were even issued a supply of drugs to take home for self-administration, so they wouldn't be popping up at the clinics every few hours for a shot.

The clinics were supposed to keep addicts out of the hands of the criminal drug peddlers and thus wipe out the underworld's narcotics empire.

But the results were quite different. Criminals, prostitutes and drug peddlers swarmed to some of the clinics in search of easy narcotics, creating local resentment against the clinics. Many addicts sold part of their free drug supply to others, causing more addiction. Others only had their appetite whetted by the free drugs and turned to underworld peddlers for more. Instead of drying up, illegal dope traffic spurted.

Some of the clinics functioned for only a

A Science Feature Article prepared by the Communications Division, American Medical Association.

few weeks, others for as long as four years. In the end they demonstrated that, with the knowledge then current, addicts could not be treated as out-patients.

The failure of both jails and out-patient clinics to control drug addiction doesn't leave us with an unresolvable dilemma, however. Medical and scientific leaders believe a middle of the road approach can produce results. This would entail commitment of addicts—but as patients, not prisoners—coupled with extensive post-withdrawal rehabilitation under medical supervision.

A joint statement by the American Medical Association and the National Research Council said, "Historically society has found it necessary to employ legal controls to prevent the spread of certain types of illness that constitute a hazard to the public health. Drug addiction is such a hazard."

The two organizations urged:

* "Measures designed to permit the compulsory civil commitment of drug addicts for treatment in a drug-free environment.

* "The advancement of methods and measures towards rehabilitation of the addict under continuing civil commitment.

* "After complete withdrawal, follow-up treatment for addicts, including that available at rehabilitation centers.

* "The development of research designed to gain new knowledge about the prevention of drug addiction and the treatment of addicted persons.

* "The dissemination of factual information on narcotic addiction."

The roots of much of the drug addiction in this country appear to spring from the juvenile willingness to accept a "dare" or to be "part of the gang." Time after time sociologists and psychiatrists investigating addiction have heard young drug users explain: "Everyone was doing it so I started" "I just followed the crowd" "I didn't

(Continued on Page 1208)



What can be done for Susan Jane To stop the runs and crampy pain?

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects intestinal mucosa.

In children, Parepectolin may be used to control diarrhea promptly and prevent dehydration, until etiology has been determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
Paregoric (equivalent) (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin (2½ grains) 162 mg.
Kaolin (specially purified) (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Children's Dose: One or two teaspoonfuls three times daily.

ROER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

(Continued from Page 1207)

want to be a sissy" "My boyfriend got me started" "Half the kids I know were popping."

No one really knows why an addict is what he is. What studies have been made on the subject seem to indicate that the addict is basically an unstable person, often "overwhelmed with helplessness and frustrations."

"I guess you don't want to be part of the human race," explained one former addict. "You get so you don't want to do the things that people have to do everyday. Dope gets you away from it all, fast."

But if drugs make life tolerable for the addict, if he feels he functions better without the frustration he has known, it is only for a short time. After a while, even a few days, his need for more and more drugs becomes the only thing that has any meaning. He is in a continual state of frenzy, fearful of the day when he won't get enough. Nothing else in life has any meaning. "He figuratively becomes an infant crying for his bottle," is the way one doctor put it.

The vast majority of addicts demand narcotics—heroin, morphine, and certain synthetics such as demerol. These are sedatives. They relax, create a feeling of withdrawal and sleepiness.

A few drug users, however, want the exact opposite effect. They go in for stimulants which cause wakefulness, exhilaration, a feeling of mastery and power.

But no matter whether the addict stupefies himself with sedatives or puffs himself up with stimulants, his quest is the same. He wants escape from himself and reality.

The "escape route" often begins with "reefers"—cigarettes made from the leaves of the female marijuana plant. (The more innocent male plant produces little more than hemp fibers for rope.) When smoked marijuana induces a zombie-like effect that tends to stifle normal inhibitions.

From marijuana, the addict soon gravitates to more potent drugs which supply bigger kicks. These are either sniffed, as in the case of cocaine, injected under the skin or into the muscle ("skin bombing"), or squirted directly into the blood vessels ("mainlining").

Neither marijuana nor the stimulants create any actual physical need. But they do create an emotional craving; a mental dependency that can be just as real to the addict as his need to breathe.

Narcotics on the other hand produce both psychological and physical dependence. Once pickled with narcotics, the nerves of the body will writhe in anguish unless they are calmed with more dope.

The granddaddy of all addicting drugs is opium. From it is refined heroin, morphine, codeine and similar sedatives so important to medicine for their pain killing properties.

Opium was probably cultivated by prehistoric man and its first recorded use goes back 7,000 years to the Middle East.

By the Christian era whole segments of the population were addicting themselves. In the last century, opium became such a profitable trade item that England went to war to force China to continue importing the narcotic from British merchants.

In its raw state opium is a dark brown gum that comes from the unripened seed pods of certain poppy plants. Most of the opium poppies are grown in India, Turkey, China and Yugoslavia, although it is also cultivated in Mexico and many parts of the Far East. Harvesters scratch the seed pods and collect the tarry drops that harden around the wound. The yield from a large field can easily be carried by one man, but the profits from even such a small amount are enormous.

Two and two-tenths pounds (one kilo) of opium will bring the farmer about $500 on the illegal market—a princely sum in many countries where poppies are grown. By the

time the opium is refined into various drugs, smuggled into the United States and diluted with various white powders, those few pounds of opium have been converted into a $200,000 product for the underworld.

In the Orient, raw opium may be eaten, taken in tea or smoked. But for the discriminating American user, this isn't good enough. He wants the biggest kick possible, and that comes from heroin injections.

Much of the heroin refining for the international crime empire that deals in narcotics is done in southern France. From there it usually passes across the border into Italy and then is smuggled into the United States. Heroin smuggles easily. An ounce of the white powder, retailing for $10,000 at underworld prices, can be carried easily in a cigarette pack with plenty of room for camouflage.

Ironically, heroin was introduced in 1898 as a non-addicting replacement for morphine. One enthusiast hailed it as the "miracle" drug of the day. It was soon discovered, however, that the claims were utterly false. Heroin's addicting powers are so great that its use is now prohibited in this country, even in medical practice.

Outlawed or not, the world to an ardent addict is usually spelled with a capital "H", which in the trade stands for heroin.

For one who strives to forget reality, the addict possesses a large store of ingenuity when it comes to gratifying his habit.

Even in a strange city he can quickly make contact with a narcotics peddler, and when his supply is dried up he knows of substitutes that will keep him "high" until he can get more. These include some medicines, which can be boiled down for the small amount of narcotic they contain, and certain chemicals whose fumes can produce something akin to a narcotic-like stupor.

There is also a hint of ingenuity in the tools of an addict's habit, although they are more often pathetic.

While hypodermic needles can be purchased legally, the addict can't get a syringe in most states without a prescription. So, he makes one from a medicine dropper, padding the tip with cotton until the needle fits tightly.

He melts down the heroin in a bottle cap or spoon, using a couple of matches for fuel. He attempts to strain impurities from the solution by pulling it into the syringe through a piece of cotton. The cotton frequently comes from padding on the back of his shoe tongue. One addict claimed pocket fuzz worked just as well.

A belt or silk stocking usually sees duty as a tourniquet to make the veins in his arm stand out to receive the shot. When he's finished, a thin piece of copper wire cleans out the needle. The whole kit is usually carried in a cigarette pack, or hidden in various places—even in garbage cans—to avoid detection by police.

One thing the addict can't hide are the needle scars over veins where he injects himself. These are usually on the inner arm where blood vessels lie close to the skin. Since they make identification of an addict easy, some heroin users seek to disguise the scars with burns. Self-mutilation means little to them, but then so does life.

Suicide, usually from an overdose of narcotics, is not uncommon among addicts, although precise statistics are lacking. Others take an overdose by accident—their demands get too high, or they get a packet that is stronger in heroin than they've been used to.

But narcotics poisoning is not the only danger. In his frenzy for his shot the addict usually can't be troubled with precautions. Dirty home-made syringes (which can't be boiled anyhow), dirty needles, dirty drugs often lead to tetanus and other infections. Or if a "community" needle is used, he may get hepatitis or a venereal disease.

Since he is an addict he doesn't seek medical help. That could lead to discovery. A

study at one hospital showed that 100 per cent of addicts stricken with tetanus died because they'd waited too long to seek treatment.

There is also a high death rate among babies born of addicted mothers. Since mother and child share the same blood supply before birth the baby also becomes a drug addict. After delivery the child may go into withdrawal resulting in convulsions. Death may follow unless the doctor knows in advance what to expect. He seldom does. Addicts like to keep their secret.

Death is not the only worry of the addict. On the fringe of reality where he lingers, hoping to escape the day to day problems, he runs into a new batch.

He rarely knows where his next shot is coming from or the money that will get him the shot. He is open quarry for police and considered fair game by blackmailers, swindlers and thieves. Even those who live off him—the dope pushers—cheat him.

According to Lt. Morgan P. Gardner, head of the Chicago Police Narcotics Unit, the packet of powder that costs the addict $10 might contain no more than a few cents worth of heroin. Most of the powder—up to 98 per cent—is usually milk sugar which looks like heroin, Gardner said.

Sometimes quinine and a cheap sleeping powder are mixed in. The quinine produces a ringing in the ears, like heroin, and the sleeping powder increases the feeling that the narcotic is taking effect.

"There's so little heroin in most of the stuff we see," Gardner said, "that I honestly think some addicts have a needle habit rather than a drug habit. They get more enjoyment out of giving themselves injections than they do from what's in the needle."

But whether it's milk sugar or heroin, whether he's needle happy or drug happy, the addict still must pay and pay heavily. His habit may cost $50 to $60 a day.

"They're always desperate for money," explained one of Gardner's detectives. "They grab at anything. They've even stolen our coats from the squad room."

One expert speculated that 25 per cent of the nation's crimes are related to narcotics addiction. Even higher figures have been reported for New York City, where 45 per cent of the known drug users dwell, and for Chicago, Los Angeles, and Detroit, the nation's other major centers of addiction.

Such figures, however, are suspected by other experts in the field, who point out that there are really no reliable statistics on the point.

Another point up for debate is whether addicts turn to crime in order to buy narcotics, or whether it's the other way around—criminals become addicts.

Regardless, one thing is clear. Crime and addiction have a strong link.

And paradoxically, it's just as clear to many medical authorities that handling addicts as criminals is no way to clear up the problem. While you can tie crime rates to addiction, it is still nearly impossible to ignore addiction as a disease.

It strikes like an infection and lingers like a cancer. It inflicts both mental and physical damage on its victims. And, it is communicable.

A user will almost invariably attempt to inflict his infection on others, usually at parties and similar gatherings. The epidemic eventually spreads through whole neighborhoods, usually in areas of poor housing, low income and high delinquency, where the depression of day to day life is greatest.

Curing addiction is primarily a rehabilitation problem. At the two Public Health Service hospitals which treat addicts—Fort Worth, Tex. and Lexington, Ky.—and at New York's Riverside Hospital, which cares mostly for teenagers, it has been found that as

(Continued on Page 1216)

Abbott Antihypertensive Building Blocks

A simplified approach to the practical management of hypertension



Enduron: (methyclothiazide) A basic building block for mild hypertensives



Excellent day-long Na^+ output, yet easy on the K^+

Enduron provides an excellent starting therapy. Your patient's sodium excretion is greatly enhanced. Yet potassium loss is low.

The therapeutic action is smooth, and persists for a full 24 hours. With Enduron you can prescribe convenient once-a-day dosage without skimping your patients on day-long thiazide effectiveness.

Of course, as with all thiazides, supplemental dietary potassium should also be considered.

Use Enduron as a basic therapy in patients with mild to moderate hypertension. A single 5-mg. tablet each day is ample in most cases.

Once a day, every day

ENDURON

METHYCLOTHIAZIDE

MILD TO MODERATE TO SEVERE



See Brief Summary on final page of advertisement

Enduronyl: Its deserpidine component adds response in moderate hypertension



Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

Once a day, every day

ENDURONYL®

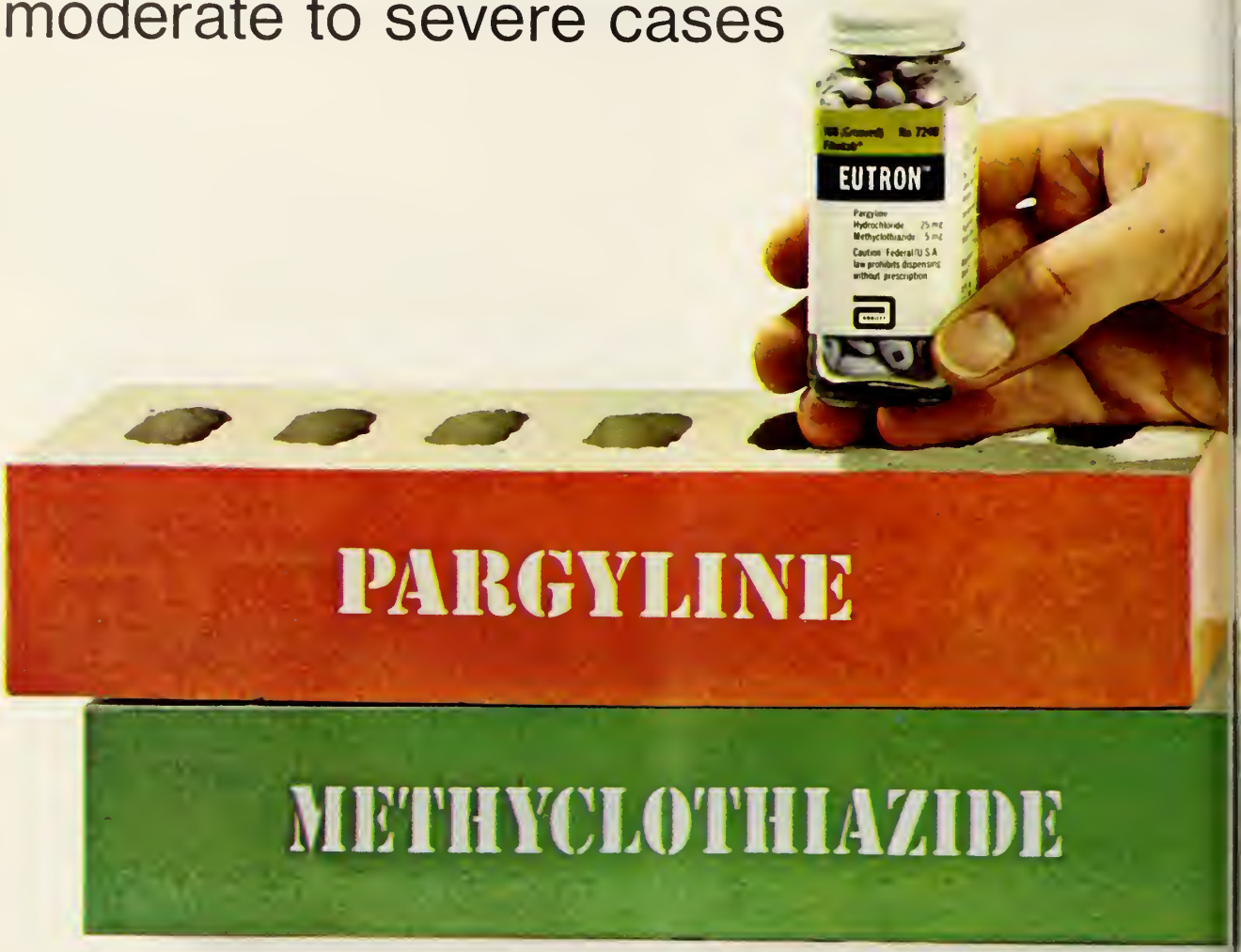
METHYCLOTHIAZIDE 5 mg. with
DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.



See Brief Summary on final page of advertisement

801094

Eutron: A unique combination for handling moderate to severe cases



Affords almost uniform diastolic reduction in all body positions

Eutron lowers diastolic pressures nearly equally, whether your patient is standing up or lying down.

Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

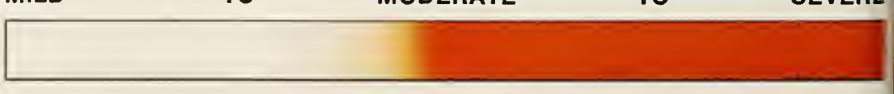
Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 mg.
with METHYCLOTHIAZIDE 5 mg.

MILD TO MODERATE TO SEVERE



See Brief Summary on final page of advertisement

801094

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains
Methyclothiazide 5 mg. with
Deserpidine 0.25 mg. or 0.5 mg.

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains
Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications—Moderate to severe hypertension.

Contraindications—Pheochromocytoma, paranoid schizophrenia, hyperthyroidism and advanced renal failure. Not recommended in malignant hypertension, children under 12, pregnant patients.

Do not use with: centrally or peripherally acting sympathomimetic drugs; foods high in tyramine (e.g., aged and natural cheeses); parenteral reserpine or guanethidine; imipramine, amitriptyline, desipramine, nortriptyline or their analogues; other monoamine oxidase inhibitors; methyldopa or dopamine; separate Eutron and these agents by two weeks.

Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease; impending hepatic coma from thiazide-induced hypokalemia.

Warnings—Patients: 1. No other drugs (particularly "cold preparations" and antihistamines), cheese or alcohol without physician's consent. 2. Promptly report orthostatic symptoms, severe headache, other unusual symptoms. 3. Angina pectoris or coronary artery disease patients must not increase physical activity with improved anginal symptoms or well-being.

Physicians: 1. Use antihistamines, hypnotics, sedatives, tranquilizers and narcotics (meperidine contraindicated) cautiously in reduced doses. 2. Stop Eutron two or more weeks before elective surgery; in emergency surgery reduce premedication (narcotics, sedatives, analgesics, etc.) to 1/4 to 1/5; carefully adjust anesthetic dosage to patient response. 3. Use cautiously in advanced renal failure. 4. Pargyline may induce hypoglycemia. 5. Consider possible sensitivity reactions when a history of allergy or asthma is present. 6. If potassium is indicated, dietary supplement is recommended; enteric-coated potassium tablets may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation frequently requiring surgery; discontinue medication immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs; Eutron does not contain added potassium. 7. Possible systemic lupus erythematosus has been reported for thiazides.

Precautions—Pargyline: Use cautiously at reduced dosage: caffeine, alcohol, antihistamines, barbiturates, chloral hydrate, other hypnotics, sedatives, tranquilizers, narcotics. Periodically do urinalyses, blood counts, liver function tests, etc. Use with caution in liver disease. Watch for orthostatic hypotension, especially in impaired circulation (e.g., angina pectoris, coronary artery disease, cerebral arteriosclerosis); also, augmented hypotension in concomitant febrile illnesses. Reduce or discontinue if hypotension is severe. In impaired renal function watch for cumulative drug effects, elevated BUN and other evidence of progressive renal failure; withdraw drug if these persist. In surgery increased central depressant response (hypotension and increased sedative effect) can be controlled by (1) discontinuing at least two weeks prior; (2) in emergency surgery lowering dose of premedication; (3) when necessary, administering a vasopressor. Do not use in hyperactive and hyperexcitable patients. Pargyline may unmask severe psychotic symptoms where emotional problems pre-exist. Use cautiously in Parkinsonism, especially with antiparkinsonian agents. In prolonged therapy, examine for change in color perception, visual fields, fundi and visual acuity. Also, prolonged therapy has made certain patients refractory to nerve blocking effects of local anesthetics.

Methyclothiazide: Use cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery thiazide may reduce vasopressor response and increase tubocurarine response. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia). Give supplemental chloride if hypochloremic alkalosis occurs and supplemental potassium if hypokalemia occurs (especially in digitalized patients). Thiazides may decrease serum P.B.I. without signs of thyroid disturbance.

Adverse Reactions — Pargyline: Orthostatic hypotension and associated symptoms, mild constipation, fluid retention, edema, dry mouth, sweating, increased appetite, arthralgia, nausea, vomiting, headache, insomnia, difficult in micturition, nightmares, impotence, delayed ejaculation, rash, purpura, weight gain, hyperexcitability, increased neuromuscular activity and other extrapyramidal symptoms. Drug fever is extremely rare. Reduction in blood sugar and hypoglycemic effects are possible. Congestive heart failure has been reported in a few patients with reduced cardiac reserve.

Methyclothiazide: Blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, blood sugar or serum uric acid (gout may be induced); anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice and pancreatitis. Cutaneous vasculitis in elderly patients has been reported with other thiazides.

If side effects are severe or persist, reduce dosage or withdraw drug. 804438R

ABBOTT

TM-TRADEMARK

DRUG ADDICTION . . .

(Continued from Page 1216)

few as 10 per cent of the patients are known to stay off narcotics after their release.

The problem is that patients cannot be retained long enough for psychiatrists to get at the real cause of the addiction—the basic unrest and tension. Nor is there enough time to realign them to life as it really exists.

Thus the emphasis in the AMA-National Research Council proposal for civil—not criminal—commitment of addicts in order that they may receive the long-term rehabilitation usually so essential if there is to be a complete cure.

Dr. Nathan B. Eddy, executive secretary of the National Research Council's Committee on Drug Addiction and Narcotics said that all states have civil commitment laws for the mentally ill. These laws, he insists, should be used as a means of committing addicts.

Dr. Dale C. Cameron, chairman of the AMA's Committee on Alcoholism and Addiction, also pointed out that mental health clinics and community rehabilitation centers must help the former addict when he returns to the community.

Addicts, he said, must be treated for what they really are, sick individuals. After medical treatment for the drugged body must come psychiatric treatment for the mind that thinks it must have drugs.

Criminal acts cannot be overlooked, but to merely jail addicts, or even to put them in hospitals until the physical need for drugs has dried up, is not nearly enough, he explained. For outside the prison or hospital the person who has used narcotics will find the same old world, the same old problems. Unless he is better equipped mentally to meet these, he will soon seek the same old escape.

Dr. Russell Lindsey To Head Comparative Medicine Unit

A Department of Comparative Medicine has been established at the Medical Center, University of Alabama in Birmingham, according to an announcement by the deans of the Medical College and School of Dentistry, Dr. S. R. Hill, Jr. and Dr. Charles A. McCallum, Jr. The appointment of Dr. Russell Lindsey as professor and chairman of the department was simultaneously announced.

"Creation of the new department reflects the Medical Center's commitment to excellence in the care and health of its research animals, and thus to research of the highest quality," the deans said. "It is also anticipated that members of this department will establish one of the Center's very distinguished research and training programs."

Dr. Lindsey and his staff will not only direct the care of all animals in the Center but perform a variety of teaching and research functions concerning laboratory animals.

Dr. Lindsey, whose background encompasses veterinary training as well as broad postdoctoral training in a medical center environment, is a graduate of the University of Georgia and Auburn University. He served a fellowship in pathology at the Johns Hopkins University School of Medicine.

The faculty will eventually include five fulltime members. At the present time two faculty members have been recruited in addition to Dr. Lindsey. These include Dr. Henry J. Baker and Dr. T. W. Weatherford, III. Dr. Baker is associate professor and Dr. Weatherford, instructor.

"For every disease in man there is probably an almost identical one which occurs naturally in animals," Dr. Lindsey said. "It is possible to study these animal models of

human disease under a wide variety of conditions to the ultimate benefit of both man and lower animals."

Dr. Lindsey said members of the department would be working closely with Birmingham's Jimmy Morgan Zoo, studying the animals' natural diseases which may occur from time to time.

The new chairman's major research interest concerns a disease which occurs in rats and mice, the animal species used in a high percentage of medical research. The disease is "chronic pneumonia" which insidiously afflicts a great many of these research animals, thus confusing the investigator and hampering research. Dr. Baker is studying bartonellosis, another subtle disease of rats and mice which frequently confuses research.

Dr. Weatherford, a graduate dentist, will be concerned with relating disorders occurring in the oral cavity of animals to similar problems of man. According to Dr. Lindsey, there are many diseases of laboratory animals which remain an enigma. Some of these will be studied in a natural environment, and later, in a germ-free environment. In order for research to be most meaningful, it is imperative that natural diseases be controlled, he indicated.

The department's laboratories will provide comprehensive support and consultative services to all areas of the Medical Center using research animals. Ties are being developed with the veterinary schools at Auburn University and Tuskegee Institute.

An important facet of the department's activities will be its educational programs. "Because of the virtually universal use of animals in research, it is most pertinent to provide graduate and postgraduate students in the biomedical sciences with 'base line' information relating to selection and use of animals in research," Dr. Lindsey said. At the same time courses will be offered regularly for animal technicians whose skills contribute significantly to the research process.

Professionally, Dr. Lindsey has held the following appointments: instructor, then assistant professor of veterinary parasitology at Auburn University (1957-61); and instructor and subsequently, assistant professor of pathology and laboratory animal medicine at Johns Hopkins University School of Medicine (1961-68). He is a Diplomate of the American College of Laboratory Animal Medicine and the American College of Veterinary Pathologists.

Dr. Baker took undergraduate work at Florida State University in Tallahassee and the University of Florida, Gainesville, then enrolled at Auburn University, from which he earned his D. V. M. degree *cum laude* in 1960. Dr. Baker subsequently took a veterinary medical and surgical internship at Boston's Angell Memorial Animal Hospital. After two years of private practice in Florida, he joined the Johns Hopkins University staff as a fellow in pathology; later he was appointed to its School of Medicine faculty as assistant professor of laboratory animal medicine and assistant in physiology. He has authored or co-authored numerous articles on his research findings.

Dr. Weatherford received the D. V. M. *summa cum laude* from Auburn University in 1954, and served as instructor in histology at Auburn from 1956-57. He then enrolled at the University of Alabama School of Dentistry and received the D. M. D. degree, ranking first in the graduating class of 1961. Dr. Weatherford was appointed to the dental school's faculty in 1962 as instructor in clinical dentistry; he has also served as veterinary consultant at the Medical Center and staff dentist at the Birmingham V. A. Hospital. In 1966-67 he completed a periodontal residency at the V. A. Hospital and Medical Center, University of Alabama in Birmingham. His research interests are biochemistry and physiology of the periodontium and comparative dental research.



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The American Medical Association and the Association of American Medical Colleges announced a joint policy statement calling for a substantial increase in the number of medical students.

Dr. Milford O. Rouse, president of the AMA and Dr. John Parks, president of the AAMC, reviewed the joint statement at a news conference in Washington.

The statement "emphasized the urgent and critical need for more physicians if national expectations for health services are to be realized." The statement said:

"National policy which would best meet this need, and would be consistent with the American ideal of equal educational opportunity for all, would provide such educational resources that every young person interested in and qualified for entry to the study of medicine would have this opportunity. Both Associations endorsed the position that all medical schools should now accept as a goal the expansion of their collective enrollments to a level that permits all qualified applicants to be admitted. As a nation, we should address the task of realizing this policy goal with a sense of great urgency.

"In their endorsement of and call for broadening educational opportunity for the study of medicine, both Associations stressed that the length of time necessary to realize such a goal does not minimize the need to respond to today's critical shortage of physician manpower. In order to enable the nation's medical schools both to meet today's crisis and to attain the longer-range goal of unrestricted educational opportunity, those responsible for allocation of resources must recognize the magnitude of these tasks."

The two associations said both immediate and long-range steps should be taken.

The immediate steps are:

1. To increase the enrollment of existing medical schools.

2. To foster curricular innovations and other changes in the educational programs which could shorten the time required for a medical education and minimize the costs.

3. To meet the need for innovation in educational programs and to encourage diversity in the character and objectives of medical schools. The development of schools of quality where a primary mission is the preparation of able physicians for clinical practice as economically and rapidly as possible is to be encouraged. . .

"A longer-range approach to the need for physicians is the development of new medical schools," the statement said. "This approach will not solve our immediate, urgent need for more physicians but it is essential for meeting the national needs of 1980 and beyond."

The two associations said the longer-range program would require adequate financial support from governmental and various private sources for:

1. Construction of facilities to expand enrollment of existing schools and to create new schools.

2. Support of the operational costs of medical schools.

3. Stimulation and incentive for educational innovation and improvement.

"To implement these measures will further

require that each medical school and its university reexamine its objectives, its educational program, and its resources to determine how it can contribute most effectively to the national need for more physicians and what financial help it will need to make this contribution," the statement said. "Also required is understanding by the public, the private foundations, industry, local and state governments, and the national Congress—groups which must provide the financial support which is necessary.

"Initiative for development of new schools and expansion of the established institutions should be locally determined. Only the governing bodies of schools with ongoing programs in medical education can decide to expand such programs. Institutions wishing to organize new medical schools must assume the responsibility for marshalling the necessary support. Both associations are prepared to lend any assistance they can to such efforts."

* * *

In a health message to Congress, President Johnson proposed control of prices of drugs bought for government programs and asked for authority for the Food and Drug Administration to publish a drug compendium financed by drug manufacturers. He also asked for more money for health manpower and the maternity and child health programs.

With an objective of lowering costs, he also asked for authority for the Health, Education and Welfare Department to establish new formulas for reimbursement of hospitals and physicians under medicare, medicaid and maternal and child health programs. The Social Security Administration immediately announced that it would begin "an experimental program to find methods of reimbursing hospitals and doctors that

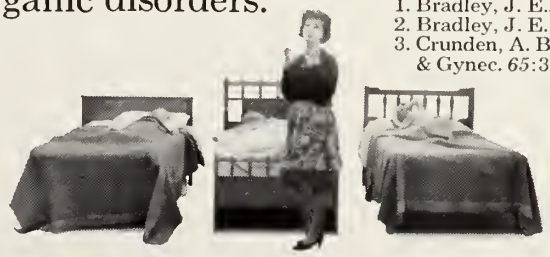
(Continued on Page 1220)



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1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



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phosphorated carbohydrate solution
emesis control

(Continued from Page 1219)

will have built-in incentives to efficiency and economy."

Participation in such experiments would be entirely voluntary, the SSA said. And Congress would have to approve the necessary legislation before new methods of reimbursement could be put in effect on a mandatory basis.

Under medicare, a physician now is reimbursed on the basis of his usual and customary fee if it is considered reasonable.

HEW said two methods of reimbursement involving physicians that might be tried are:

—Group practice prepayment plans which offer comprehensive health services to their members could be reimbursed on a set per capita rate for the ensuing period.

—For physicians' services, experimental bases of payment might be a single fee related to total illness services rather than individual fees for each individual visit and individual service, agreed-upon fees held stable for specified periods, fees related to physician-time, or retainer or per capita payments per year for services of a specified kind.

Commenting on Mr. Johnson's health message, Dr. Rouse said:

"There is great need for expanded health care service in the United States. Meeting this need requires devoting attention to all the elements involved in the supply of resources and manpower, the distribution of health care, and costs.

"The AMA supports private and governmental programs that help those who need help. Health care for all the people should be expanded in an orderly way so resources and needs are increased together and at comparable rates of growth.

"Government can and should support the construction and renovation of hospitals and extended care facilities, and together with the states and private sources, should promote a rapid increase in medical manpower.

"As for drug prices, we believe that every patient should be able to buy high quality prescription drugs at the lowest possible price. The way to accomplish this is to promote more effective price competition at the retail level, which will result in lower prescription drug prices for everyone. This should be the thrust of government programs —not price fixing for one group. Everyone should be encouraged to be more price conscious in buying prescription drugs. The physician should include both medical and price considerations in writing prescriptions and the patient should patronize that pharmacy that can furnish dependable service and the prescribed product at the lowest possible price. . .

"The President's message contains little essentially new. It concentrates again on pouring additional millions of dollars into a health care system that is already facing requirements well beyond what it can now meet.

"Government expenditures for health care should be moderated during this period of acute shortage to control rapidly rising cost. Government can be most helpful by controlling inflation and by providing tax deductions and credits for people purchasing health insurance. . . .

"The physicians of this country will welcome a genuine partnership in health, where the Federal government will sincerely and continually seek the advice and active collaboration of those whose special services lie in medical education and the planning and provision of superior quality medical care for all citizens."

The Board of Medicine of the National Academy of Sciences stated that the transplantation of human hearts still is in the experimental stage and proposed three guidelines for the procedure.

The Board said human cardiac transplantation should only be carried out in institutions in which these three criteria can be met:

1. The transplant teams should be highly

skilled and have had extensive laboratory experience.

2. The work should be carefully planned, and the results should be rapidly communicated to others in the field.

3. Both the teams and the patients should be protected by "rigid safeguards."

* * *

A check is being made to determine how many alien physicians, dentists and "allied specialists" are now subject to draft laws. A new law for the first time makes aliens in the medical and dental professions subject to draft up to age of 35.

* * *

President Johnson asked Congress for $571.7 million more for medicaid for the 1968 fiscal year ending July 1, 1968.

The administration said the initial appropriation proved inadequate because of a complete lack of data and experience as to costs of such a program and a larger increase than expected in costs of hospital and other medical care.

National Survey Of VD Incidence

On July 1, 1968, all practicing physicians in the U. S. will receive a questionnaire asking the number of cases in infectious syphilis, other stages of syphilis and gonorrhea treated by them from April 1 through June 30, 1968.

This survey, entitled, "National Survey of VD Incidence," is a repeat of a similar 1962 poll and is sponsored jointly by the American Medical Association, the American Osteopathic Association, the National Medical Association, American Social Health Association in cooperation with the Public Health Service.

Current estimates show that VD is infecting Americans at the alarming rate of 1,100,000 cases a year and is now the nation's most urgent communicable disease problem. Indications are that private physician reporting has increased considerably since the 1962 survey, which showed the level of reporting to be only 11 per cent of the infectious cases treated. The 1968 survey should determine the extent of the increase.

The questionnaire card requires no signature and replies of individual physicians will *not* be identified by name. Results of the survey will be published nationally by the sponsoring organizations.

Answers To Infertility

Many of the questions young people ask about their seeming inability to bear children are answered in the new AMA pamphlet, "Infertility."

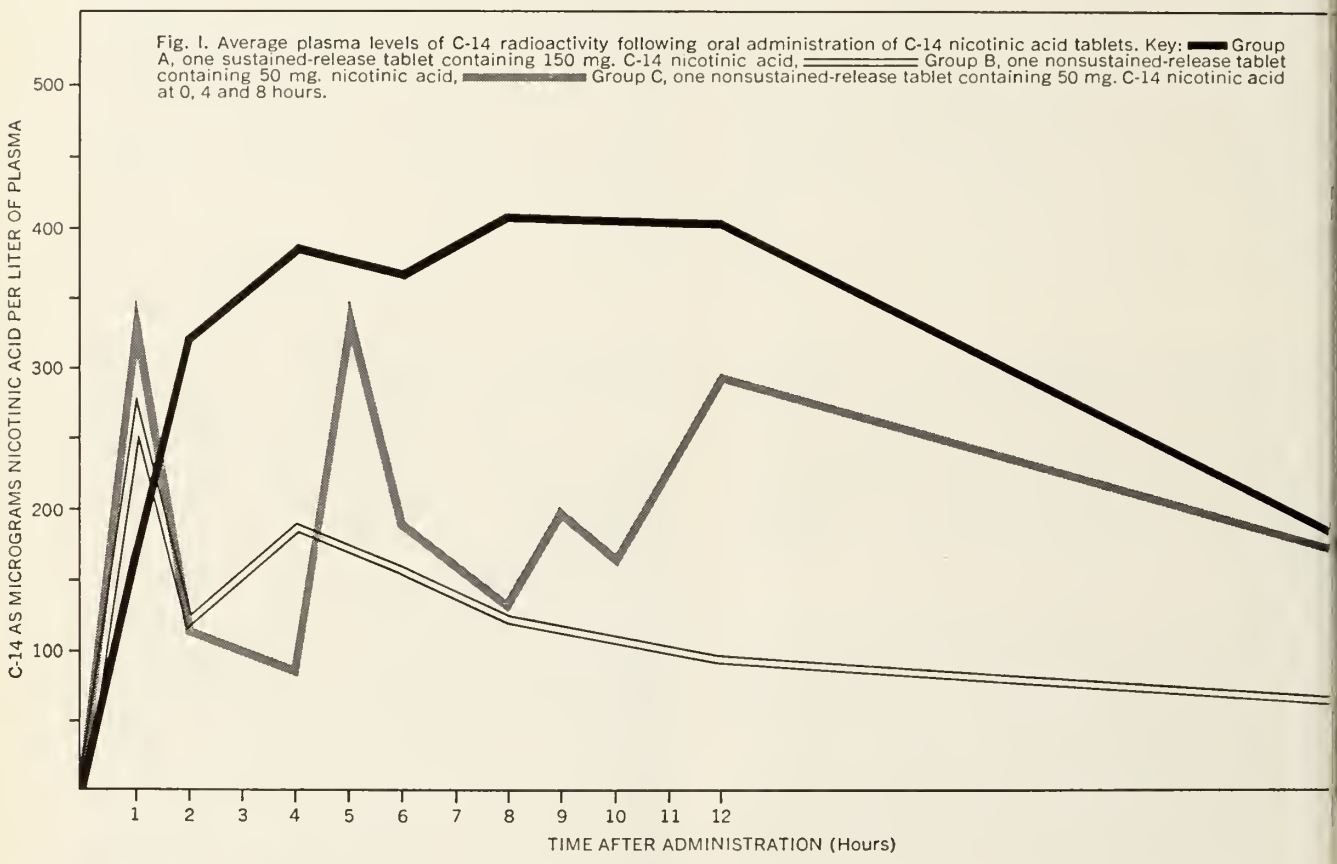
The one-page pamphlet describes the factors essential to fertility, suggests where the trouble may lie and offers suggestions for solving the problem. It states that if failure continues for more than one year, the childless couple should find out why rather than senselessly accuse each other or develop feelings of inferiority over the inability to procreate.

Ten per cent of married couples of childbearing age have difficulty in achieving pregnancy. Fortunately, the pamphlet points out, as many as half of these couples can be helped after careful medical diagnosis of their problem and appropriate treatment of one or both of the partners.

Review copies may be obtained from the AMA's Department of Health Education. Quantity copies may be obtained from the Order Department at prices ranging from 10 cents each; 50-99, 9 cents each; 100-499, 8 cents each; 1000 or more, 4 cents each.

Sustained circulatory, respirato and cerebral stimulation for t

Fig. I. Average plasma levels of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═══ Group B, one nonsustained-release tablet containing 50 mg. nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.





(fewer absent doses by absent-minded patients)

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be c- tinuous on a daily dose of only one Geroniazol TT t- let every 12 hours.

The gradual release of nicotinic acid in Geronia TT will provide the well-known peripheral vasodila- tion needed in patients with deficient circulation a with a minimum amount (if any) of "flushing." Al cerebrovascular circulation is complemented by p- tylenetetrazol, long-established as a cerebral and r- piratory stimulant.

Geroniazol TT improves the typical, unfortuna signs of senile confusion. Patients become more ale

ged and debilitated

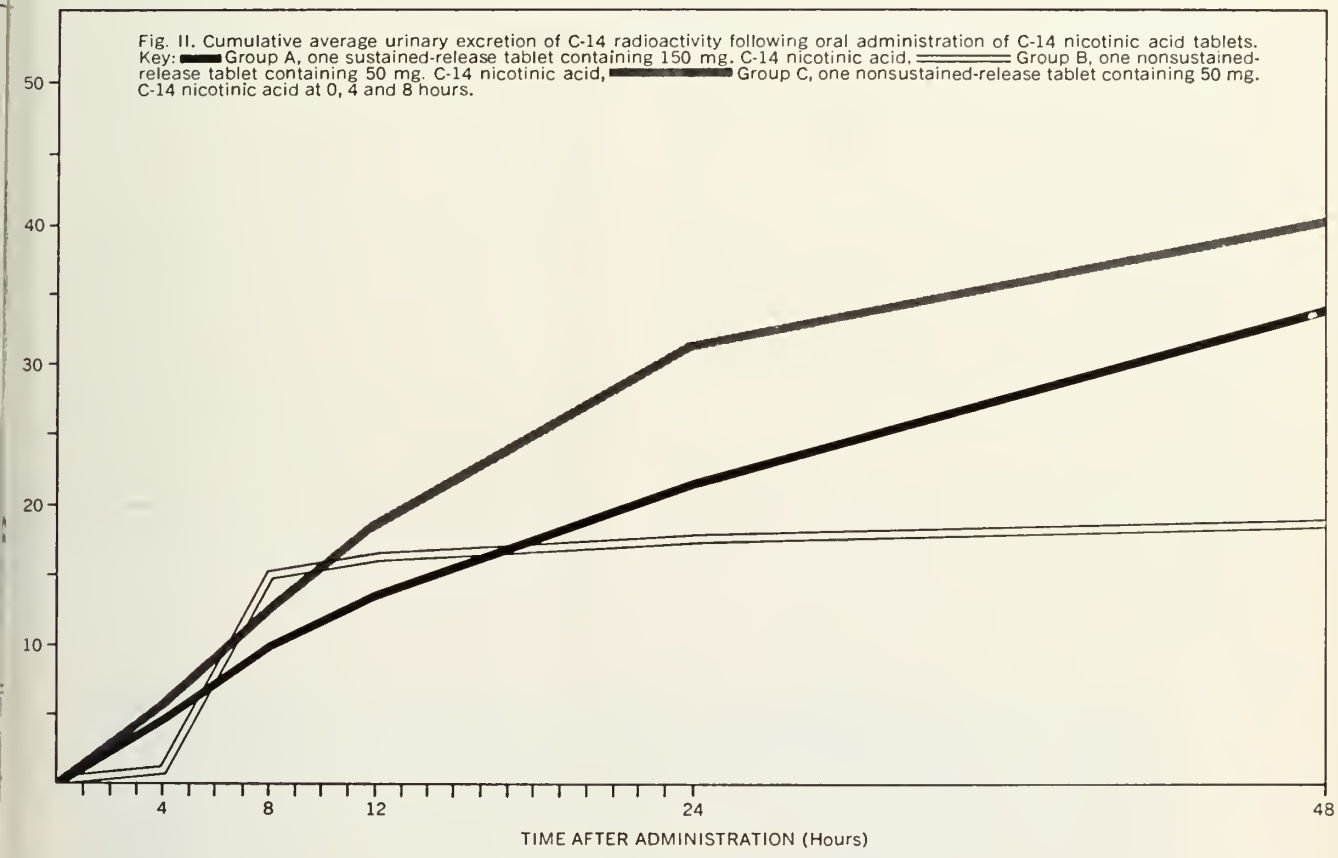


Fig. II. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═══ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

ess confused and moody. Personal care, memory, motional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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Grant Supports Training and Research in Cystic Fibrosis

The National Cystic Fibrosis Research Foundation has announced a grant of $15,000 to Dr. Herschel Bentley, chairman of the Department of Pediatrics, Medical College of Alabama, to support care, research and training in cystic fibrosis during 1968. Foundation President Dr. Milton Graub announced the third consecutive yearly award to Dr. Bentley, and expressed appreciation for the Medical College's excellent work in behalf of children with cystic fibrosis.

Cystic fibrosis is a hereditary disease which poses a serious threat to the health and life of the affected child. The associated chronic respiratory problems require close attention and day-to-day treatment.

"The NCFRF award will provide a means for continuing special education programs on cystic fibrosis for residents, interns and medical students, and will help us to advance research directed toward control of this crippling disease," Dr. Bentley said.

"Most of this award consists of contributions to the National Fund made by local people, and we are sincerely grateful for their support."

An outpatient clinic for diagnosis and care of children with cystic fibrosis is held twice monthly in the University Hospital Outpatient Facility. The Clinic, sponsored by the Birmingham Chapter of NCFRF, serves all patients with cystic fibrosis. The local chapter underwrites treatment expenses and furnishes therapy equipment, which may include mist tents, compressors, or aerosols used to liquify mucous.

Mrs. Jack Hopping, executive resident director of the NCFRF Birmingham Chapter, considers support of research and training as a wise investment for the future treatment of cystic fibrosis.

"Better diagnosis, attained through research and training efforts, has resulted in detection of cystic fibrosis at an early age. The resulting earlier beginning for treatment has been invaluable to the child with cystic fibrosis," Mrs. Hopping said.

"At present, the probable life span of a child with cystic fibrosis is sometime in the teens. However, in 1955, only few survived beyond the age of five, and even prior to 1965, most did not live to be 15. It is encouraging to know that, in Birmingham, we have a patient who has reached the age of 22, and three others who are high school age."

In the CF Clinic's first year of operation, three years ago, 47 children were diagnosed and treated. Last year, 67 received treatment, and over 100 cases are expected during 1968. New cases are being seen at the rate of about two every time the clinic meets.

Gifts Considered Rebates By Judicial Council

A physician may not accept a gift such as a radio, compact refrigerator, or the like from a manufacturer or a distributor of drugs, remedies, appliances or services for prescribing these products for his patients.

According to the AMA Judicial Council opinion adopted in November, 1967, this practice amounts to rebating. The Council further states that it is ethically improper because it could influence the physician to prescribe the donor's product. If a product or service is prescribed for its effectiveness, it would be preferable that it be discounted so that the patient, rather than the physician, benefits.

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Weariness "without cause"

Psychic tension with depressive symptomatology?

"For weeks I've done practically nothing and I'm always tired. I wake up tired and I go to bed tired. It's absurd. It's really absurd."

When the patient complains of fatigue, and you can find no organic cause, you recognize that it may serve her as a means of avoiding responsibilities or facing an emotional problem. It is, in effect, a psychological retreat behind a somatic cover of continuous fatigue —one of the many depressive symptoms often associated with psychic tension.

She needs counsel and reassurance, and perhaps a tranquilizer to attenuate excessive tension and help restore the capacity to cope. As an aid to successful management, consider the value of Valium® (diazepam). As psychic tension is eased by Valium therapy, secondary depressive symptoms too may subside. The patient feels more capable, therefore more hopeful; better able to handle situations of intense stress.

Before prescribing Valium (diazepam), consult complete product information; a summary follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindications: Known hypersensitivity to drug; children under 6 months of age; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in treatment of psychotic patients, and should not be employed in lieu of appropriate treatment. As with most CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may also be associated with temporary increase in frequency and/or severity of seizures. Advise patients against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance. Keep addiction-prone individuals (such as drug addicts or alcoholics) under careful surveillance because of their predisposition to habituation and dependence. Use of any drug in pregnancy, lactation or in women of childbearing age requires that potential benefit be weighed against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium, such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants. Employ usual precautions in the severely depressed or in those with latent depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

Adverse Reactions: Side effects most commonly reported: drowsiness, fatigue and ataxia. Infrequently encountered: confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo and blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, use of the drug should be discontinued. Because of isolated reports of neutropenia and jaundice, periodic blood counts and liver function tests are advisable during long-term therapy. Minor changes in EEG patterns (low-voltage fast activity) observed during and after therapy and are of no known significance.

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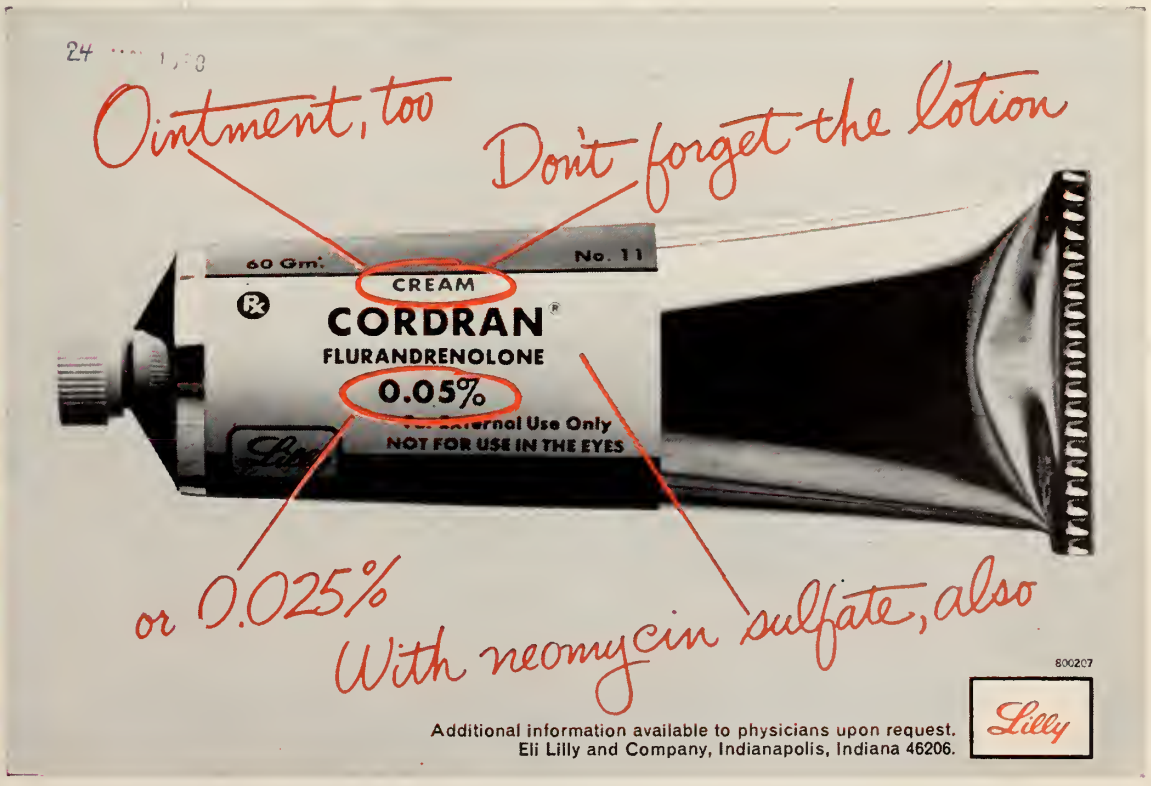
JOURNAL of the Medical Association of the State of ALABAMA

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Medical Association of the State of Alabama

Volume 37 • May, 1968 • No. 11

Office of Publication
19 So. Jackson St. Montgomery, Ala. 36104
Subscription Price $5.00 Per Year
$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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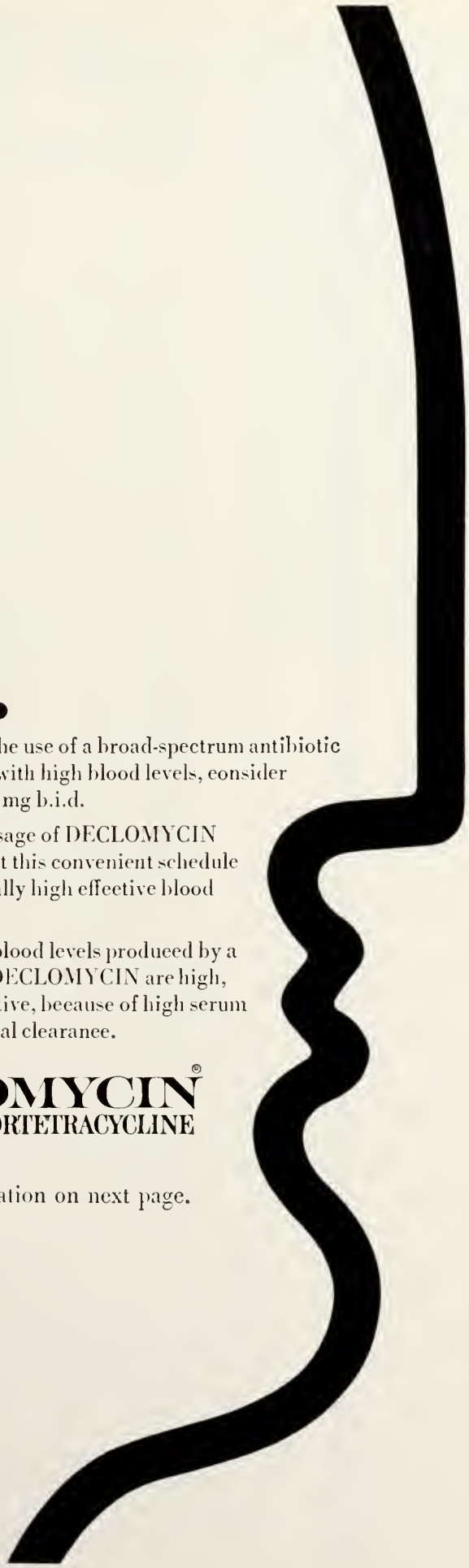
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President's Page



E. L. McCafferty, Jr.

In my first letter to you, please let me express my appreciation to the Medical Association of the State of Alabama for having elected me your president for the coming year. I fully realize the responsibility that we will face this year and the serious problems that we must share together; however, if we all work toward a common goal, it would seem to me that we have an opportunity to actively participate in the course that the Medical profession will follow for many years to come. No one can foresee the future and yet each of us can be informed so that our ultimate decisions will not only represent the considered judgment of the individual doctor in his community, but his county society and be crystalized at the state level. It is hoped that each physician will help in forming the state policy by communicating with the State headquarters and also urging your County society to advise your state officers and Board of Trustees of their collective opinion. Let me assure you that a system of two way communications between the local physician, the county medical society, the state and finally the AMA offers to us a means of being heard and in collective action and opportunity to meaningfully participate in shaping the policies that we, MASA, will ultimately pursue.

Since the officers and the Board of Trustees are charged with the responsibility to represent all of the physicians in this state, I will recommend to your Board of Trustees that

1. The district Vice Presidents become more active in representing your views to the Board and that they meet with your County societies in order that we may hear your wishes and serve you on a more personal basis.

2. That the Board of Trustees hold at least one Meeting in each geographical district and at this time the membership be invited to attend these meetings. It is hoped that in this way better communication can be established in our understanding your problems and cooperating by working with you to solve them, or at least eventually resolving a practical working solution. You in return would contribute your recommendations to the proposed programs of MASA.

The MASA under the Leadership of Dr. Robinson, your Vice presidents and Board of Trustees have established a central headquarters that I believe is the finest anywhere. They have alerted us to the problems. They have worked diligently to promote the best interest of the medical profession and now I hope that all of us accepting our responsibility as members of the MASA and to the future of our profession can continue to move forward toward a strong, mature organization that will restore the profession to its place of respect and dignity that it so rightfully deserves.

E. L. McCafferty, Jr.

The Woman's Auxiliary

As I am writing this, my first President's Page, I am very much aware of the responsibilities that are mine as I assume the duties of the President of the Woman's Auxiliary to the Medical Association of the State of Alabama. It will be a privilege and a joy to serve in this office, and I am looking forward to it with great anticipation.

The emphases during this administration will be Membership, Health Careers, AMA-ERF and Legislation. Knowing that there is a very large gap between the number of doctors who are members of the Medical Association and the number of doctors' wives who are Auxiliary members, we will continue to strive to enlist new members, not only because we need them to help us reach our worthy goals, but because we want them to know the satisfaction and the rewarding experience of serving through this organization.

Realizing the urgent need for personnel in the health fields, and the challenging tasks that lie ahead, we will put forth a greater effort than ever to stimulate interest in health careers. We feel sure that the outstanding work done in this area during the past year will bear fruit. Through AMA-ERF, we are able to do something very worthwhile, as we contribute to education and research. We are proud of the fine contribution made during the past administration. We hope to make an even larger contribution this year, and will continue to give of our time, money and talents toward this end.

Legislation is most important, with the various issues pertaining to health. Health care is under attack as never before, and we are aware of the numerous problems facing the medical profession today. We realize that we are key people in legislation for health. We need to work closer with our congressmen; we need to be informed, stimulating the interest of our husbands and our friends. The Auxiliary stands ready to serve with the Medical Association; your problems are our problems, and we are eager to work with you in maintaining the high ideals of the medical profession.



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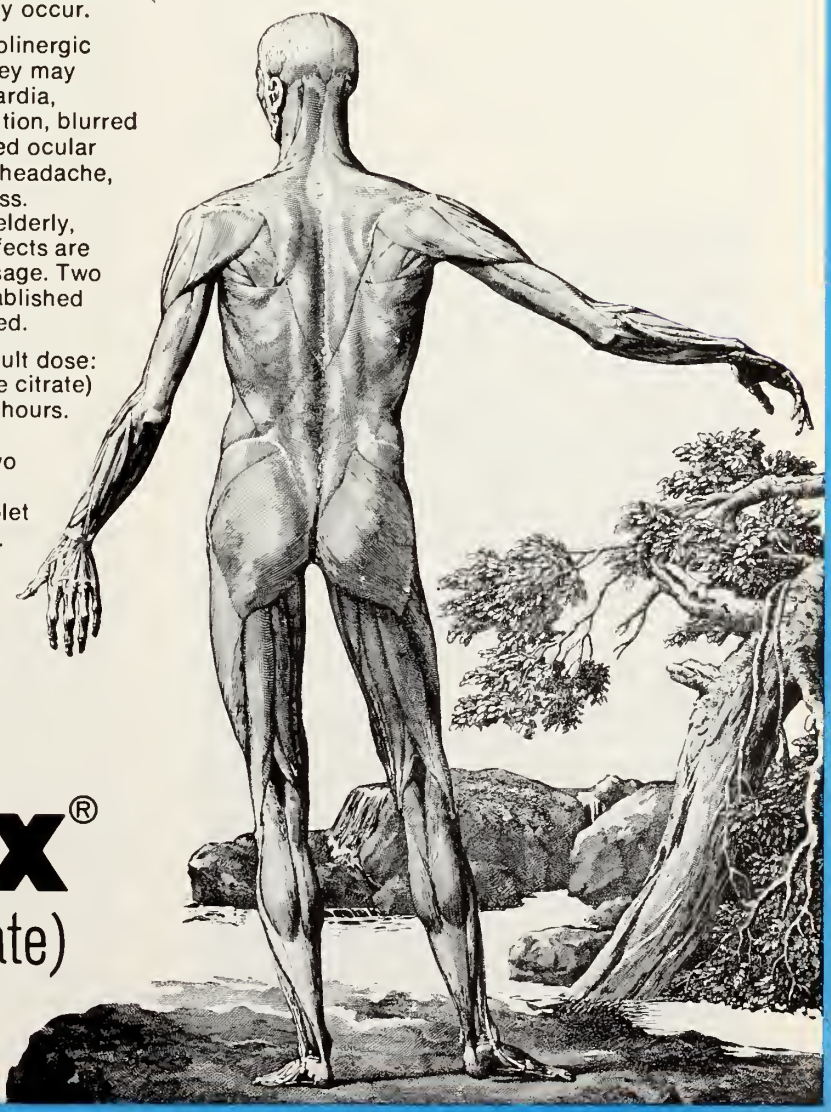
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A "Well Done" for Dr. Robinson

The 107th Annual Session of the Medical Association of the State of Alabama, and the record of the administration which guided the destiny of this organization during the past year, are now recorded history.

To state that President E. Bryce Robinson, Jr. left the Association in better condition than he found it is not to demean the accomplishments of his predecessors. Each of those worthy statesmen of organized medicine are duly deserving of considerable credit for their own accomplishments.

But in the past few years it seems that each new president has been confronted with new and increasingly different problems.

To Dr. Robinson fell the task of obeying the Association's mandate, unanimously ordained in the closing hours of the 106th Annual Session, that the comprehensive health program embraced under Public Law 89-97, Title XIX, and now popularly known as Medicaid, should properly be a responsibility of the health organization despite the fact that its primary benefits were directed toward the indigent.

There was also the responsibility for placing Title XIX in its true perspective and relating it to the several other governmental programs designed to combat the physical afflictions of mankind.

That the immediate Past President met the challenges successfully are attested by the Official Transactions of the 107th Annual Session. What in the beginning appeared a hopeless task was brought about in such a calm and dignified fashion that few realize the tremendous effort expended behind the scenes.

New relationships based on mutual confidence and respect were accomplished between this Association and other providers of health services with the result that a spirited- and probably divisive-legislative battle was averted. The Governor, heeding the near-unanimous voice of the providers, simply designated the State Board of Health as the single state agency to administer Medicaid, revoking an earlier designation of the Department of Pensions and Security.

President Robinson assigned to the President-Elect and the four Vice Presidents the responsibility for analyzing and explaining to the membership the governmental problems administered by different agencies which duplicated or closely paralleled one another. This program, widely hailed both within the State and throughout the nation as one of the most effective expositions of bureaucratic medicine, was presented on January 14, 1968. Of collateral interest was the discovery that many of the Federal administrators, themselves, did not know that some other branches of the Government were competing with them to provide health care to certain individuals.

Throughout the year many other difficult problems were encountered by President Robinson and it is to his credit that he approached them in a spirit of sympathetic un-

derstanding and determination to resolve the issues to the best interest of the membership.

A capable administrator, President Robinson probably placed more responsibility upon the committee structure of the Association and the central office staff than some of his predecessors. He sought to have the problems digested by small groups in the lower strata of organization and then to filter their determinations and recommendations upward until, when finally resolved, the problem had had the benefit of analysis by the largest possible number of responsible authorities.

Upon incoming President Emit L. McCafferty, Jr., will fall the task of continuing the management of this Association. The footsteps which he will be expected to follow are clear and deep. While some of the storm clouds ahead will result from conditions extant they will, for the most part, be new ones for which he must find his own silver linings.

New President Man of Many Talents

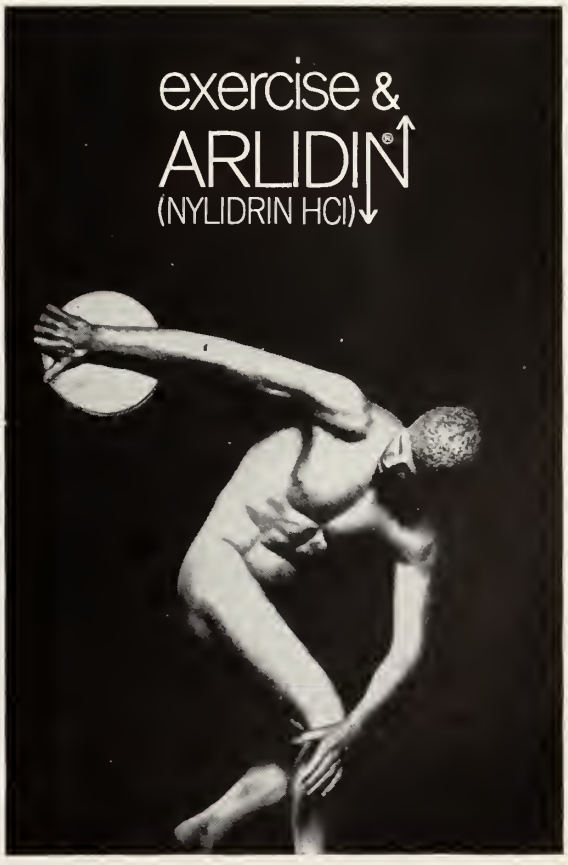
The Journal takes this opportunity to salute Emit L. McCafferty, Jr., as the new President of the Medical Association of the State of Alabama, and to wish him well. His long experience in organized medicine at the county and state levels should serve him in his new endeavors.

The son of a physician, Dr. McCafferty is "to the profession born" and his high dedication to the principles and ideals of medicine cannot be challenged. It may surprise some to know that he is also a man of far-ranging interests and has long been identified in his home city of Mobile in activities as widely divergent as the arts and athletics.

He has rendered yeoman service to this Association as Chairman of the Committee on Legislation and as President-Elect, positions which he held simultaneously during the past year. The demands of his surgical practice, heavy though they have been, have not prevented him from sacrificing the time demanded by his Association responsibilities.

It is fortunate that Dr. McCafferty assumes the mantle of President during the year when unprecedented public funds must be obtained to implement the Medicaid program. His experience in the areas of legislation most assuredly will result in the success of this venture.

Entering the limelight with Dr. McCafferty is his wife, Nita, his childhood sweetheart who has accompanied him through the trials and tribulations of internship, military service and more than a quarter century of medical activities. A son and two daughters complete the family.



Delay Judgment on Secretary Cohen

While it is unlikely that organized medicine will dance in the streets over the appointment of Wilbur Joseph Cohen to the cabinet position of Secretary of Health, Education and Welfare, there is at least, in the early days after his appointment, micro-dimensional reasons to withhold instant judgment until the course has been fully shaped.

Generally regarded as the behind-the-scenes architect of America's plunge into socialized medicine, Secretary Cohen's first utterances after assuming his new office were unexpected to say the least. He was quoted in a news article as denouncing the conclusion of the President's Commission on Civil Disorders to the effect that white racism is a principal cause of the recent wave of rioting.

Cohen is quoted as having said: "I wish some of the energy that has gone into rioting had gone instead into self-improvement." He added that he sees a need for oppressed people to be "lifting themselves up by their own boot straps."

Secretary Cohen is an enigmatic character to most of the physicians in this country and some of his statements to Congressional Committees during consideration of Medicare-Medicaid and other far-left types of welfare legislation have been credited for engendering more physician opposition to health legislation than those of any other man alive.

Secretary Cohen has long been the private whipping boy of Marjorie Shearon, Ph. D., scientist, editor, legislative consultant and pamphleteer without peer. From 1946-1966 she published a weekly analytical critique on Compulsory Health Insurance Legislation and Related Subjects. Its columns brimmed with denunciations of those whom she considered communistic and socialistic. None fell victim to her acid-tipped pen more frequently than Wilbur Joseph Cohen. In 1967 she published a book entitled "Wilbur J. Cohen: The Pursuit of Power" and labeled it a bureaucratic biography.

In the book Mrs. Shearon links Secretary Cohen with so many agencies and organizations whose ideals are despicable to physicians that it is impossible to believe the President could have appointed such a man to oversee so many problems which require the limitless cooperation of Medicine. The quotation of Secretary Cohen cited above, balanced against the allegations of Mrs. Shearon, lead us to an inevitable conclusion that the new Cabinet chieftain has (1) changed his stripes, (2) speaks out of both sides of his mouth, (3) or was sorely abused journalistically in his climb to the top of the heap.

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Group Practice Clearly Defined

Somewhere along the way it is a cinch that you have heard the poem of the six blind men of Indostan who sought to describe an elephant. Each had felt a different part of the elephant—the side, tusk, trunk, leg, ear and tail—and each concluded that the animal was like a wall, spear, snake, tree, fan and rope.

The poem concludes:

> "So oft in philosophic wars, the disputants, I ween, rail on in utter ignorance of what each other mean—and prate about an elephant not one of them has seen."

This poem rather aptly pinpoints the difficulties in organized medicine today as it relates to the group practice of medicine. Any discussion of group practice is almost guaranteed to provoke a rise of temperature in the discussants, and this is due in large degree to the fact that no two physicians seem to agree on just what the phrase "group practice" really means. There is no universally accepted definition for it.

It is rather strange but it was not until 1948 that the American Medical Association's House of Delegates came up with a definition of group practice. We find it strange because it had been almost a half-century before when some physician brothers named Mayo initiated what is considered the first group practice of medicine in this nation.

But returning to 1948 and the AMA definition. It defined the group practice of medicine as "the application of medical service by a number of physicians working in systematic association, with joint use of equipment and technical personnel, with centralized administration and financial organization."

In subsequent years it became apparent that this definition was too general and consequently, in 1964, the Council of Medical Service of the AMA adopted an altered definition that was more detailed. The Council decided that group medical practice is "the application of medical service by three or more physicians formally organized to provide medical care, consultation, diagnosis and/or treatment through the joint use of equipment and personnel, and with income from medical practice distributed in accordance with methods previously determined by members of the group."

The matter of group practice has also drawn considerable attention down through the years from the Judicial Council of the AMA. Despite often expressed views to the contrary by some physicians, no arm of the AMA has either endorsed or rejected the income policies of groups.

In 1959 the Judicial Council announced its position on group or partnership income, to wit: "The division of income among members of a group, practicing jointly or in partnership, may be determined by the members of the group and may be based on the value of the professional medical services performed by the member and his other services and contributions to the group. Contract practice as applied to medicine means the practice of medicine under an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization, political subdivision or individual, whereby partial or full medical services are provided for a group or class of individuals on the basis of a fee schedule, or for a salary or for a fixed rate per capita."

Why this extended discourse on group practice? For a very real reason. The welfare-do-gooders in Washington are convinced that the best way to provide quality health care to the masses and at the same time combat what they call the "spiralling costs of health care" is to make the private or solo practitioner a thing of the past (something like the blacksmith) and instead revert to the group practice of medicine. To be forewarned is to be forearmed.

Image of Dr. Spock Has Undergone a Change

Untold thousands of American mothers in years gone by swore by Dr. Benjamin Spock. His "How to" book on the care of babies was one of the all-time best sellers.

Today people are still swearing at the mention of Dr. Spock's name, but rather than swearing by him they are swearing at him. We number ourselves among this group.

No challenge is raised here to the right of any man, Dr. Spock included, to dissent. But the noisy Dr. Spock has carried his dissent dangerously close to the brink of treason.

Dr. Spock is by no means alone in his concern about the Vietnam situation. He has every right to voice this concern. But to encourage mass evasion of the draft even if it means the jailing of 50,000 young men and to promote the burning of draft cards—this seems to go well beyond a reasonable definition of dissent.

What has perhaps been overlooked in Dr. Spock's recent headline-hunting tirades has been his great inconsistency, and nowhere was this more in evidence than in a recent address to a strange conglomeration of bewhiskered young college students (we suspect the beards are co-educational) who claim membership to a group called the Student Health Organization.

In almost the same sentence Dr. Spock insisted the federal government was insanity personified regarding its Vietnam policy but nonetheless organized medicine should become an "official partner" with this very same federal government in the planning and providing of health care.

About the only thing Dr. Spock had to say which made much sense was his assessment of what other physicians thought of him: "They look upon me as some sort of a nut." That is a splendid diagnosis.

For rapid, reliable blood determinations there is one "laboratory" you can always depend on...



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And you can have your own "laboratory" with a BMI/Searle M 1000 Blood Analyzer.

With a BMI/Searle Blood Analyzer you are not dependent on t consuming outside laboratory services. Tests can be run by present personnel and results will be in your hands in minutes.

This compact system performs the five most commonly requ blood determinations more accurately and economically than comparable system. It is specifically designed for doctors' offi clinics and small hospitals.

YOUR PRACTICE WILL BENEFIT FROM THESE MO 1000 FEATURES

1. It provides accurate results in minutes, while the pa is still in your office and the clinical problem is in mind.
2. Accuracy is assured because of on-premise operation easily administered control checks.
3. Operating costs are extremely nominal, averaging less 30¢ per test.

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Test	Rated Accuracy	Rated Reproducibility	Operator Time	Cost R Per Te
B. U. N.	5.5% ±	3.0% ±	1 min.	$.24 -
Cholesterol	6.0% ±	3.0% ±	1 min.	.31 -
Cynamethemoglobin	2.5% ±	2.0% ±	30 sec.	.10 -
Oxyhemoglobin	4.0% ±	2.0% ±	30 sec.	.09 -
Glucose	4.0% ±	2.1% ±	1 min.	.19 -
Uric Acid	7.0% ±	4.0% ±	1 min.	.43 -

* Supplies available for each test in three volume sizes.

The BMI/Searle Model 1000 Blood Analyzer system is compl flexible. It can be purchased with the full complement of five procedures or with any combination of the above tests.

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BM SEARLE

Weariness without cause"



Psychic tension with depressive symptomatology?

"For weeks I've done practically nothing and I'm always tired. I wake pired and I go to bed tired. It's really absurd."

/en the patient complains of fatigue, and you can n no organic cause, you recognize that it may serve e as a means of avoiding responsibilities or facing n motional problem. It is, in effect, a psychological eat behind a somatic cover of continuous fatigue ne of the many depressive symptoms often asso- ed with psychic tension.

h needs counsel and reassurance, and perhaps a quilizer to attenuate excessive tension and help ore the capacity to cope. As an aid to successful nagement, consider the value of Valium® (diaz- pm). As psychic tension is eased by Valium therapy, secondary depressive symptoms too may subside. The patient feels more capable, therefore more hopeful; better able to handle situations of intense stress.



ore prescribing, please consult complete product infor- ion, a summary of which follows:

cations: Tension and anxiety states; somatic complaints h are concomitants of emotional factors; psychoneurotic s manifested by tension, anxiety, apprehension, fatigue, essive symptoms or agitation; acute agitation, tremor, de- m tremens and hallucinosis due to acute alcohol withdrawal; nctively in: skeletal muscle spasm due to reflex spasm to pathology, spasticity caused by upper motor neuron dis- rs; athetosis, stiff-man syndrome, convulsive disorders (not ole therapy).

traindications: Known hypersensitivity to drug; children er 6 months of age; acute narrow angle glaucoma; may be in patients with open angle glaucoma who are receiving propriate therapy.

rnings: Not of value in treatment of psychotic patients, should not be employed in lieu of appropriate treatment. with most CNS-acting drugs, caution patients against haz- us occupations requiring complete mental alertness (*e.g.*, ating machinery, driving). When used adjunctively in con- ive disorders, possibility of increase in frequency and/or rity of grand mal seizures may require increase in dosage of dard anticonvulsant medication; abrupt withdrawal in such s may also be associated with temporary increase in fre- ncy and/or severity of seizures. Advise patients against si- taneous ingestion of alcohol and other CNS depressants. hdrawal symptoms (similar to those with barbiturates and hol) have occurred following abrupt discontinuance. Keep iction-prone individuals (such as drug addicts or alcoholics) er careful surveillance because of their predisposition to ituation and dependence. Use of any drug in pregnancy, ation or in women of childbearing age requires that potential efit be weighed against possible hazard.

cautions: If combined with other psychotropics or anti- vulsants, carefully consider individual pharmacologic effects articularly with known compounds which may potentiate on of Valium, such as phenothiazines, narcotics, barbiturates, O inhibitors and other antidepressants. Employ usual pre- tions in the severely depressed or in those with latent depres- ; suicidal tendencies may be present and protective mea- sures necessary. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

Adverse Reactions: Side effects most commonly reported: drowsiness, fatigue and ataxia. Infrequently encountered: confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo and blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, use of the drug should be discontinued. Because of isolated reports of neutropenia and jaundice, periodic blood counts and liver function tests are advisable during long-term therapy. Minor changes in EEG patterns (low-voltage fast activity) observed during and after therapy and are of no known significance.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See **Precautions.**) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg, and 10 mg; bottles of 50, 100 and 500.

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Valium® (diazepam)

helps relieve psychic tension with associated depressive symptoms



Some Aspects Of The Problem Of Health Manpower

John M. Chenault, M. D.

These questions are raised repeatedly—Will American medicine be able to meet the demands made upon it during the next decade? Will the increasing population, more sophisticated, better educated, and expecting more health care through such programs as Medicare and Medicaid, outstrip the ability of medicine to deliver needed and demanded health manpower services? Is there a shortage of doctors?

The usual prescription for cure—increase the number of physicians—is too simple in view of the complexity of the problem. This simple prescription fails to distinguish physician manpower from physician services, and from health care services, and all these from health itself, which is the ultimate goal.

The *demand* by the public for health care services is often purely the result of economic affluence; the *need* for health care services by the public may be, and often is, quite a different matter. Health care services must be provided by the so-called "Health Team," and it is mandatory that the physician remain as the Captain of this team.

In the March issue of this *Journal*, Dr. Tinsley Harrison made some observations concerning medical education and decentralization of clinical medical education and postgraduate medical training. The suggestions concerning education of third and fourth year medical students and graduate medical training are interesting, have much merit, and deserve serious consideration by Alabama physicians and educators. In order for such a program to be really successful, it is necessary for the director to be an outstanding individual with a deep understanding of education and a good relationship with the practicing physicians. The staffs of the hospitals involved in such a program must understand both the *benefits* and *disadvantages* of having full time chiefs of service whose primary relationship is to education and not to patient care per se.

The use of the Regional Medical Program to provide continuing education courses and consultative services to practitioners (and ultimately to be involved in undergraduate education) is a challenging concept. This might well serve also as a proving ground for determining the applicability of monitoring devices and use of automated diagnostic procedures for patients. The Medical Association of the State of Alabama should continue

(Continued on Page 1244)

Abbott Antihypertensive Building Blocks

A simplified approach to the practical management of hypertension



Enduron: (methyclothiazide) A basic building block for mild hypertensives



Excellent day-long Na^+ output, yet easy on the K^+

Enduron provides an excellent starting therapy. Your patient sodium excretion is greatly enhanced. Yet potassium loss is lov

The therapeutic action is smooth, and persists for a full 24 hour With Enduron you can prescribe convenient once-a-day dosag without skimping your patients on day-long thiazide effectivenes

Of course, as with all thiazides, supplemental dietary potassiu should also be considered.

Use Enduron as a basic therapy in patients with mild to mo erate hypertension. A single 5-mg. tablet each day is ample i most cases.

Once a day, every day

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METHYCLOTHIAZIDE

MILD TO MODERATE TO SEVER



See Brief Summary on final page of advertisement

Enduronyl: Its deserpidine component adds response in moderate hypertension



Less frequent rauwolfia side effects than with reserpine

When you wish to build further response, consider shifting to Enduronyl.

Enduronyl adds a building block of *deserpidine*. This is a purified rauwolfia alkaloid available only from Abbott. It adds good antihypertensive and tranquilizing activity. Yet its incidence of untoward effects, particularly lethargy and depression, is lower than with reserpine.

Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

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METHYCLOTHIAZIDE 5 mg. with DESERPIDINE 0.25 mg. or (FORTE) 0.5 mg.

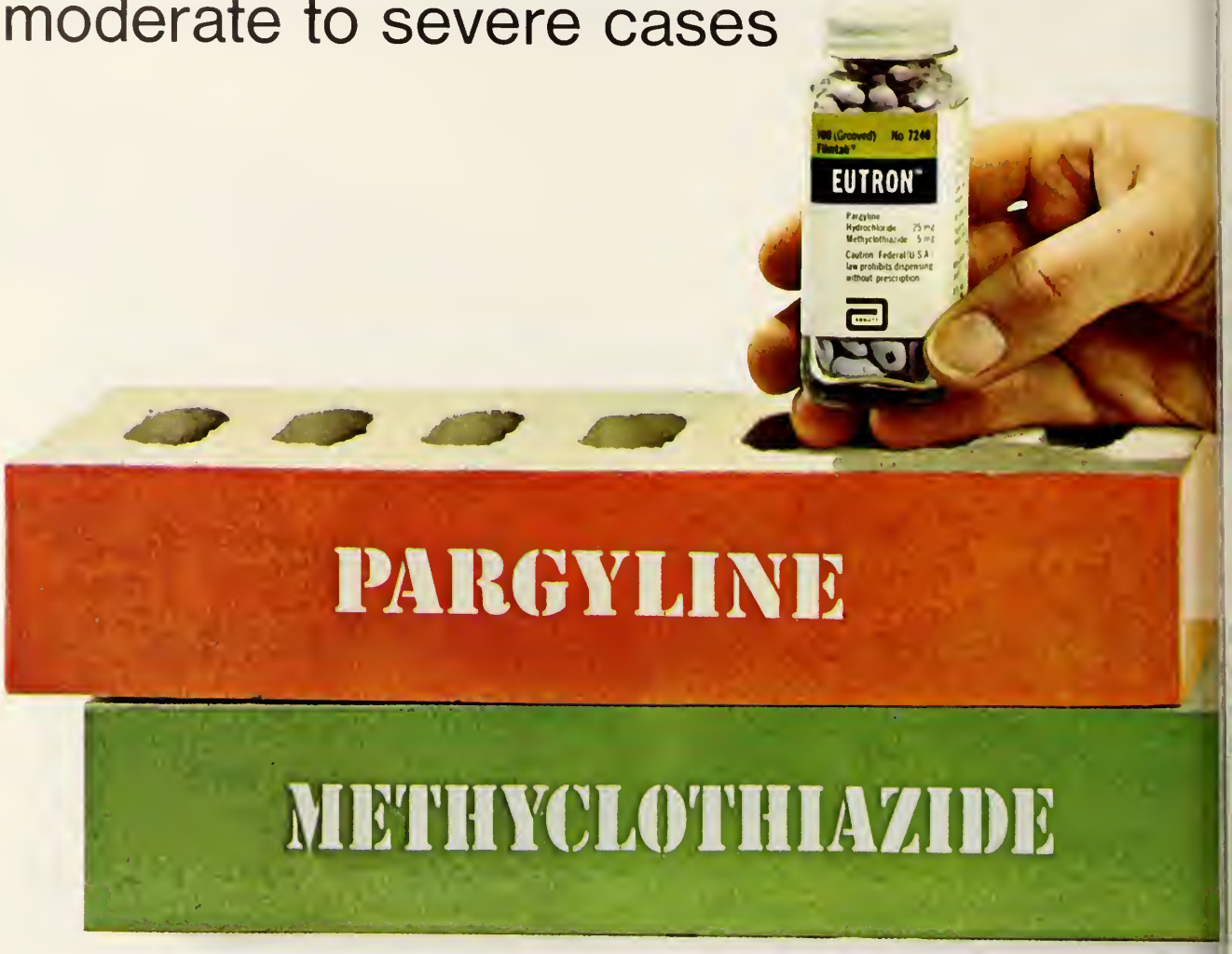
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Eutron: A unique combination for handling moderate to severe cases



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Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

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PARGYLINE HYDROCHLORIDE 25 mg.
with METHYCLOTHIAZIDE 5 mg.

MILD TO MODERATE TO SEVERE



See Brief Summary on final page of advertisement

ENDURON® | ENDURONYL®

METHYCLOTHIAZIDE

Each tablet contains
Methyclothiazide 5 mg. with
Deserpidine 0.25 mg. or 0.5 mg.

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains
Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications—Moderate to severe hypertension.

Contraindications—Pheochromocytoma, paranoid schizophrenia, hyperthyroidism and advanced renal failure. Not recommended in malignant hypertension, children under 12, pregnant patients.

Do not use with: centrally or peripherally acting sympathomimetic drugs; foods high in tyramine (e.g., aged and natural cheeses); parenteral reserpine or guanethidine; imipramine, amitriptyline, desipramine, nortriptyline or their analogues; other monoamine oxidase inhibitors; methyldopa or dopamine; separate Eutron and these agents by two weeks.

Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease; impending hepatic coma from thiazide-induced hypokalemia.

Warnings—Patients: 1. No other drugs (particularly "cold preparations" and antihistamines), cheese or alcohol without physician's consent. 2. Promptly report orthostatic symptoms, severe headache, other unusual symptoms. 3. Angina pectoris or coronary artery disease patients must not increase physical activity with improved anginal symptoms or well-being.

Physicians: 1. Use antihistamines, hypnotics, sedatives, tranquilizers and narcotics (meperidine contraindicated) cautiously in reduced doses. 2. Stop Eutron two or more weeks before elective surgery; in emergency surgery reduce premedication (narcotics, sedatives, analgesics, etc.) to 1/4 to 1/5; carefully adjust anesthetic dosage to patient response. 3. Use cautiously in advanced renal failure. 4. Pargyline may induce hypoglycemia. 5. Consider possible sensitivity reactions when a history of allergy or asthma is present. 6. If potassium is indicated, dietary supplement is recommended; enteric-coated potassium tablets may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation frequently requiring surgery; discontinue medication immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs; Eutron does not contain added potassium. 7. Possible systemic lupus erythematosus has been reported for thiazides.

Precautions—Pargyline: Use cautiously at reduced dosage: caffeine, alcohol, antihistamines, barbiturates, chloral hydrate, other hypnotics, sedatives, tranquilizers, narcotics. Periodically do urinalyses, blood counts, liver function tests, etc. Use with caution in liver disease. Watch for orthostatic hypotension, especially in impaired circulation (e.g., angina pectoris, coronary artery disease, cerebral arteriosclerosis); also, augmented hypotension in concomitant febrile illnesses. Reduce or discontinue if hypotension is severe. In impaired renal function watch for cumulative drug effects, elevated BUN and other evidence of progressive renal failure; withdraw drug if these persist. In surgery increased central depressant response (hypotension and increased sedative effect) can be controlled by (1) discontinuing at least two weeks prior; (2) in emergency surgery lowering dose of premedication; (3) when necessary, administering a vasopressor. Do not use in hyperactive and hyperexcitable patients. Pargyline may unmask severe psychotic symptoms where emotional problems pre-exist. Use cautiously in Parkinsonism, especially with antiparkinsonian agents. In prolonged therapy, examine for change in color perception, visual fields, fundi and visual acuity. Also, prolonged therapy has made certain patients refractory to nerve blocking effects of local anesthetics.

Methyclothiazide: Use cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery thiazide may reduce vasopressor response and increase tubocurarine response. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia). Give supplemental chloride if hypochloremic alkalosis occurs and supplemental potassium if hypokalemia occurs (especially in digitalized patients). Thiazides may decrease serum P.B.I. without signs of thyroid disturbance.

Adverse Reactions — Pargyline: Orthostatic hypotension and associated symptoms, mild constipation, fluid retention, edema, dry mouth, sweating, increased appetite, arthralgia, nausea, vomiting, headache, insomnia, difficult in micturition, nightmares, impotence, delayed ejaculation, rash, purpura, weight gain, hyperexcitability, increased neuromuscular activity and other extrapyramidal symptoms. Drug fever is extremely rare. Reduction in blood sugar and hypoglycemic effects are possible. Congestive heart failure has been reported in a few patients with reduced cardiac reserve.

Methyclothiazide: Blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, blood sugar or serum uric acid (gout may be induced); anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice and pancreatitis. Cutaneous vasculitis in elderly patients has been reported with other thiazides.

If side effects are severe or persist, reduce dosage or withdraw drug. 804438R

ABBOTT

TM-TRADEMARK

HEALTH MANPOWER PROBLEMS

(Continued from Page 1238)

to support Alabama's RMP so long as it continues to function in the manner described by Dr. Robert Marston, National Director of RMP, "The focus is on the patient; the mechanism is cooperative arrangements; the emphasis is on local initiative, flexibility, and decision making; and the reason for the program is the relationship between science and service."

Most groups, both in and out of government who have studied the matter, agree that there is an insufficient number of doctors to provide needed health care services, and this conclusion is borne out by the *Report of the National Advisory Commission on Health Manpower*. The American Medical Association and the American Association of Medical Colleges, as well as consultative firms, urge an increase in the number of students in existing medical schools and an increase in the number of such schools to the point that all qualified applicants could be admitted as students. This would satisfy the economists' demand for a "free market" for numbers of physicians, but will require untold millions of dollars for buildings and personnel.

One of the greatest problems concerning physician manpower and American medicine is that of the foreign medical graduate. A few of the foreign medical schools are of excellent quality; many are not. Of the 286,000 physicians listed in the AMA records, 47,500 (12 per cent) are not licensed to practice. Of these, 18,600 (39 per cent) are FMG's. Six thousand, seven hundred and seventeen of 8,619 doctors from England, Italy, Switzerland, and West Germany have been licensed, while 7,951 of the 8,991 doctors from India, Korea, the Philippines, Taiwan, and Thailand have not received licenses. During the past six years, the U. S. has been importing almost as many doctors as were graduated from U. S. medical schools. In New Jersey, FMGs fill 75 per cent of the internships and 68 per cent of the residencies. In 1966-67, the total number of residents and interns in the U. S. who were graduates of American schools was 30,121, while 14,861 were foreign medical graduates. The National Advisory Commission on Health Manpower recommended that a commission on foreign medical graduates be established outside of Government to study and make recommendations concerning the many problems related to foreign medical graduates, including the frequent inadequacy of their education and training.

The ECFMG examination, which is given in an effort to determine whether the graduate of a foreign school is eligible to enter a hospital for training in the United States, consists of an English examination to determine if the applicant has any proficiency in the use of the English language, and an examination to determine his scientific and biological information. Selected simpler questions are taken from the examination of the National Board of Medical Examiners and given to the FMG in a one-day examination. About 19,000 examinations per year have been given since 1963. The selected questions from the National Board examination are those which more than 95 per cent of American graduates pass readily. Difficult questions are excluded. Of these selected questions, 40 per cent of foreign medical graduates score 75 per cent or higher, the remainder fail.

The medical profession should seriously support efforts to assure the public that FMG's are properly educated before or after their immigration, and should not compromise standards of patient care just to increase the number of available physicians. Efforts in this direction immediately involve problems with immigration policies. In 1962, the United States liberalized its immigration policies to admit persons with special education and skills without regard to national quotas. In 1965, the law and regulations were further liberalized in that petitions for admission need not be approved by the Secretary of Labor if the alien is to be employed in a field in which the Department of Labor has found that a shortage of qualified persons exists in the U. S. In December 1965,

the Department of Labor ruled that since there is a shortage of doctors in this country, fully licensed physicians from abroad may petition for permanent resident visa without applying for Labor Department clearance. The impact of this decision may have far-reaching effects.

In Alabama, FMGs may be licensed if they have successfully taken the ECFMG exam, have become a citizen of the U. S., have a certificate from Alabama's Basic Science Board, pass the exam of the Alabama State Board of Medical Examiners, or are certified by one of the American Specialty Boards. These restrictions have tended to assure only well qualified and competent FMGs being licensed in Alabama.

It appears there is a need for a continuing study and seeking of mechanisms for increasing the total health manpower force. Physicians and paramedical personnel must be increased numerically, and the efficiency with which they function should be improved. The use of sophisticated and automated diagnostic and monitoring procedures should be expanded. Finally, there must be an all-out effort to assure availability of service when and where needed, at the same time continually striving to raise the level of quality of the services rendered.

A Few Reasons Why You Should Belong To The A. M. A.

M. Vaun Adams, M. D.

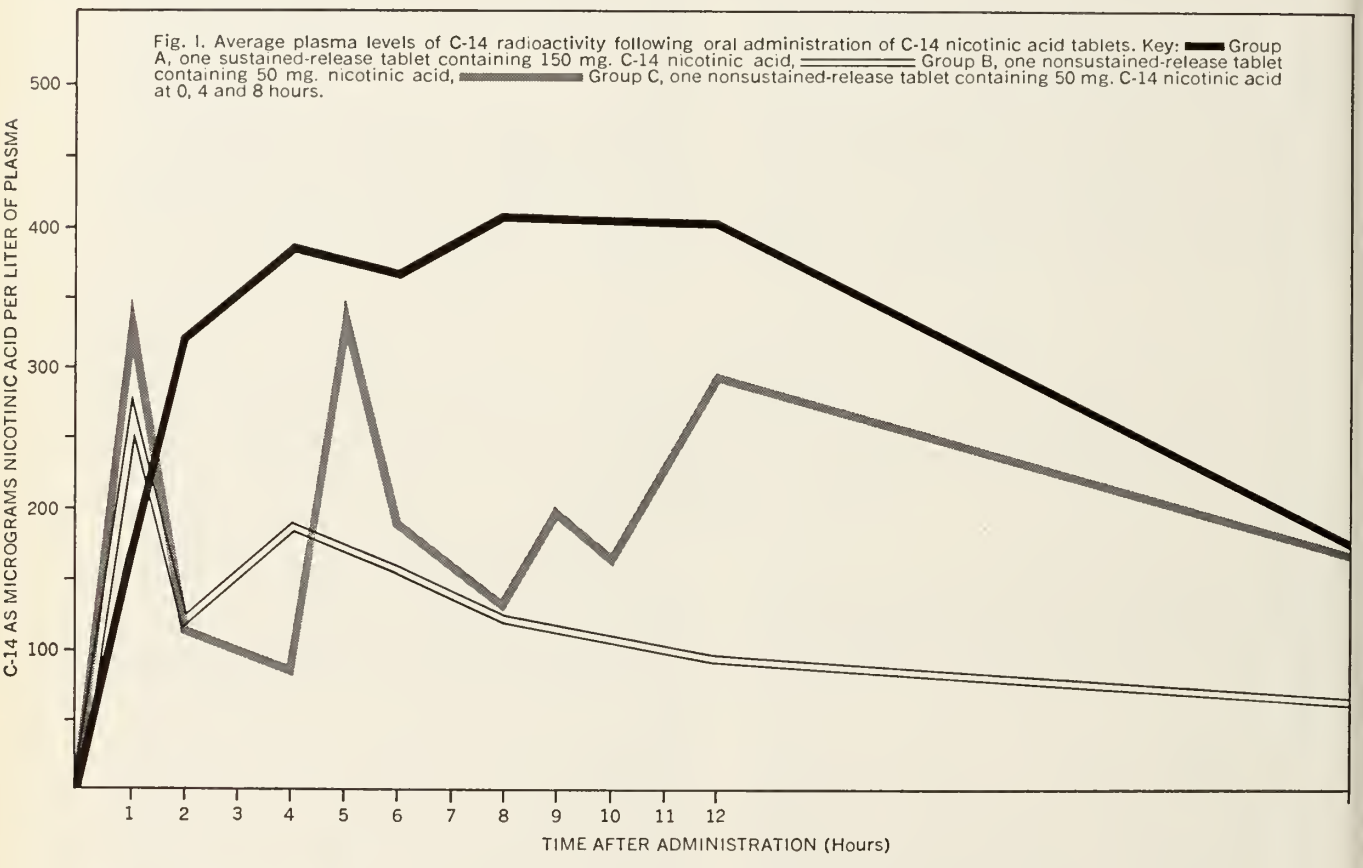
There are many reasons why you should belong to the A. M. A. Among those that appear to be particularly pertinent at this time are:

To support the battle for the preservation of the private practice of medicine. Your help, both financial and moral, in fighting our battles in our State Legislature and in the Congress of the United States is extremely important. In view of the federal government's promotion of group practice it is extremely important that physicians in the United States should differentiate between the group practice of medicine (as we generally think of it today) and the *comprehensive prepayment group practice programs which are being promoted by the federal government*. The report of the Commission on Medical Care Plans (known as the Larson Committee Report) was presented to the House of Delegates in 1959. This report covers both of these areas, but I am quite confident that many physicians do not relate this to the *closed panel practices of prepaid group practices* such as the Kaiser Permanente Health Plans and the Health Insurance Plan of Greater New York.

You must realize that the House of Delegates determines A. M. A. policy— the A. M. A. central office and the Board of Trustees merely carry out the policies as determined by the House of Delegates. You should also recognize the diversity of opinion in your county medical society as well as in the Medical Association of the State of Alabama. In the Congress of the United States you will find all shades of thoughts and ideas (as well as ideals) and you must effect a similar situation in the House of Delegates. It is a most democratic organization with reference committee hearings offering every physician in the United States an opportunity to testify as to his beliefs. Delegates are very sensitive and responsive to grass roots philosophy—but this grass roots philosophy must be communicated to the delegates. Have you ever contacted or written to your delegates from Alabama about any specific program? Have you ever introduced any resolu-

(Continued on Page 1248)

Sustained circulatory, respirator and cerebral stimulation for th





(fewer absent doses by absent-minded patients)

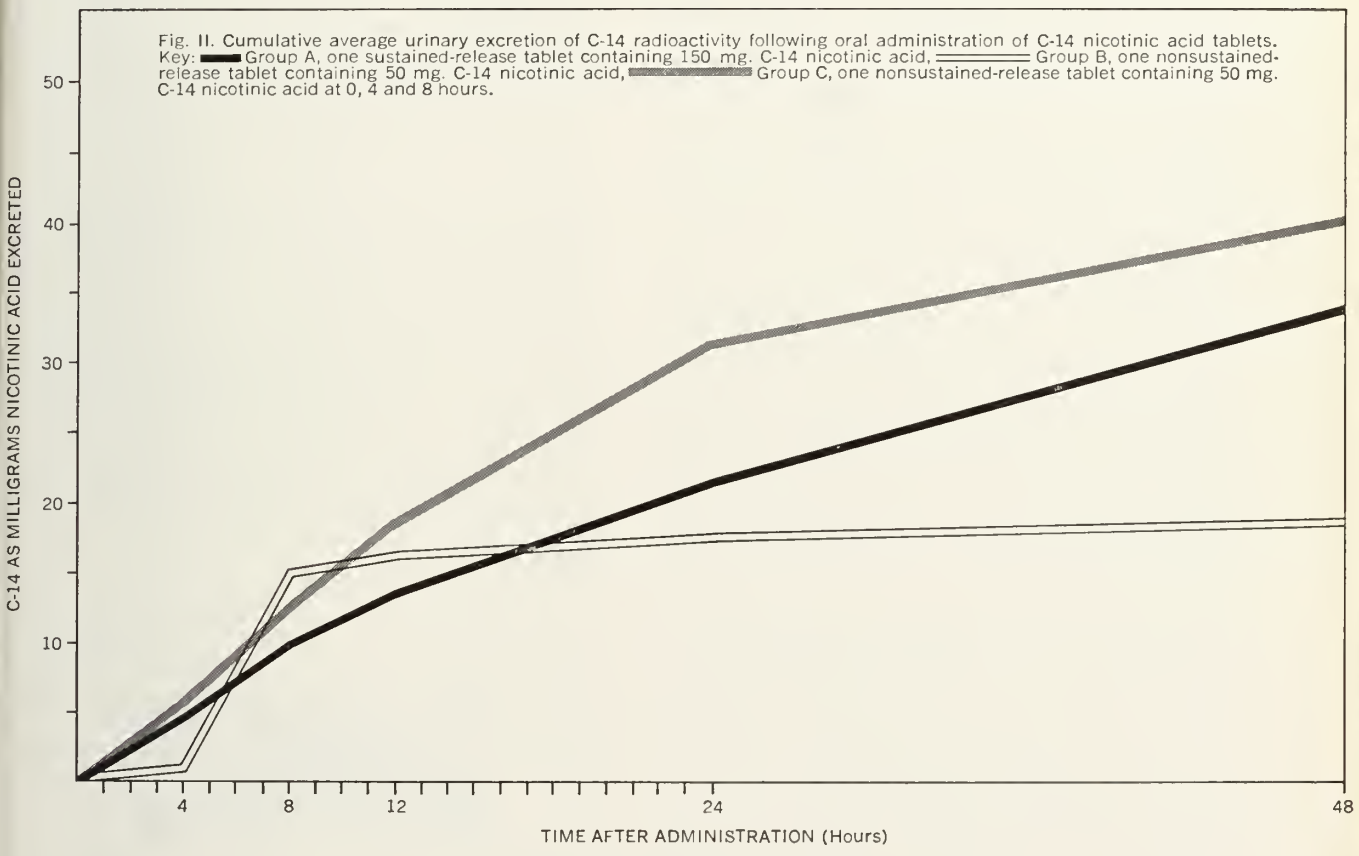
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

ged and debilitated



less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

WHY BELONG TO THE A. M. A.

(Continued from Page 1245)

tion to your state medical society? Surely you realize that the state medical association may instruct its delegates to vote in any manner that it dictates.

You should belong to and support the A. M. A. because it is the voice of American medicine—organized medicine—and it has the interest of American physicians at heart. The A. M. A. speaks for physicians in the Halls of Congress and everywhere the viewpoint of medicine is requested or an opportunity is given to express it.

The A. M. A. takes a very positive stand on many, many things. Take the time to read the J. A. M. A. and the A. M. A. News to find out the position the A. M. A. has taken in regard to every bill pertaining to medicine and the allied health fields. By the same token, the A. M. A. is opposed to the philosophy of federally controlled medicine. This is a positive position.

If you will study the five goals of the President's Health Program and read what is behind these goals you will be astounded. According to Dr. Milford Rouse, president of the American Medical Association, physicians and hospitals are getting the message—i.e. President Johnson's health message and the word is that medicine must participate in "voluntary experiments" to reduce fees—experiments that are particularly intended to lead to the adoption of prenegotiated payment schedules under Medicare and Medicaid. If the "voluntary experiments" fail it is perfectly obvious that the next step will be further federal control—with the obvious result that "usual, customary and reasonable fees" will be allocated to the waste basket. Dr. Rouse says that the full application of the President's 1968 health message is still being pondered.

The appointment of Wilbur Cohen as Secretary to the H. E. W. certainly does not endear the administration in the minds of physicians who have fought Mr. Wilbur Cohen and his socialization of medicine for many, many years. This appointment is a direct affront to the A. M. A. There are many experiments being considered but you can rest assured that none of them will be to the advantage of medicine. This recent appointment and the health message by the president should inform physicians throughout the United States as to what is actually happening in the Congress of the United States as far as health legislation is concerned. Dr. Rouse indicated that the A. M. A. will try to avoid a confrontation for the time being but many of us think this is wishful thinking and that the die has been cast for another battle of philosophies in the Congress of the United States. What are your ideas? Will you express them?

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

Lederle

330–8/6135

National VD Survey Scheduled

In an effort to obtain an accurate measure of the severity of the VD problem in the United States, the American Medical Association, the National Medical Association, the American Osteopathic Association and the American Social Health Association in cooperation with the Public Health Service will conduct the "National Survey of VD Incidence," which will cover the period from April 1 through June 30, 1968.

All practicing physicians in the United States will receive an official questionnaire mailed on July 1. The tabulated results will be published nationally by the sponsoring organizations. All medical societies have been requested to cooperate by urging physicians to participate in this survey.

(Editor's Note: The AMA's Department of Environmental Health suggested that we send you the following article which can serve as a guide in developing your own article for your medical society's publication. Reprint permission has been granted by the author, Alf Pedersen, M. D., of Seattle-King County Health Department; S. P. Lehman, M. D., Director; and the editors of the King County Medical Society Bulletin, in which it will be published.)

"During the period April 1st to June 30th, 1968, King County Physicians are asked to keep tab on the number of V. D. cases they are diagnosing and treating. This is part of a nationwide, three-months' survey conducted jointly by the AMA, NMA, AOA and American Social Health Association. The study is designed to bring 'up-to-date' information on the extent of new infections occurring throughout the United States. The medical profession and the general public have rightly become alarmed at the spread of these communicable diseases, especially gonorrhea.

"The last survey, conducted in 1962, was open to a great deal of doubt as to accuracy because most questionnaires sent to physicians were completed from memory rather than records. We have provided on the bottom of this page, a 'Score-Box' which we hope you will fill out as cases are diagnosed and treated during the next three months. Please cut this page out and place it where it will be an obvious reminder to you or your secretary to keep an accurate tally.

"In July you will receive in the mail a simple questionnaire. It will be easy for you then to transfer the numbers for your 'Box-Score' to the questionnaire. Your help is earnestly solicited to make this survey a success. Please return your completed questionnaire as soon as possible after July 1, 1968.

"Before any effective control program can be instituted against V. D., we must have an accurate measure of the size of the problem. The extent of unreported V. D. has always been a speculation. Perhaps we are more concerned than we need to be. Perhaps the 'Epidemic' does not exist as many people claim. It is also possible that we have all underestimated a serious medical problem which must be dealt with in a more effective manner.

"The completed questionnaire which you mail in will not require identification as to its source. The information you give will only be numbers—so there should be no concern about medical confidence or legal implications. A successful and accurate survey will be of great importance to physicians and the public alike."

	"V. D. BOX-SCORE" (April 1-June 30, 1968)
Primary & Secondary (Infectious) Syphilis	
Other Stages of Syphilis	
Gonorrhea (Male & Female)	

NOTE: Check marks in appropriate box will suffice for tally.

767 Choose Medicine As Career

The practice of medicine continues to be a preferred career choice among the nation's scholastic elite—semi-finalists in the National Merit Scholarship Program—although the number planning to study medicine has declined from a year ago.

This has been revealed by an unofficial AMA study of information contained in the National Merit Scholarship Corporation's catalog listing the 14,000 students honored as semi-finalists in the 13th Annual Merit program for 1967-1968. Academically, all are in the 99th percentile of the nation's graduating seniors.

Of the 10,779 career-decided students, seven per cent (767) indicated that they seek to become Doctors of Medicine. This represents an appreciable decline from a year ago when eight per cent (950) indicated medicine as their career choice. An offsetting factor, however, was the fact that last year was a "bumper year" in which 159 more semi-finalists listed medicine as their career choice than did so in the 1965-1966 program.

For the third consecutive year one of every three semi-finalists indicated a decision to enter medicine or a closely allied field. Twenty-seven per cent of all career-decided candidates plan to become either physicians, physicists (643), scientists-unspecified (543), chemists (352), biological scientists (341) or biochemists (212).

If the 3,221 career-undecided or unreported semi-finalists in the 1967-68 program were to make career choices at the same ratio as the 10,779 who have reached their decisions, it would indicate that 996 plan to study medicine. The comparable figure for the 1966-67 candidates was 1,133.

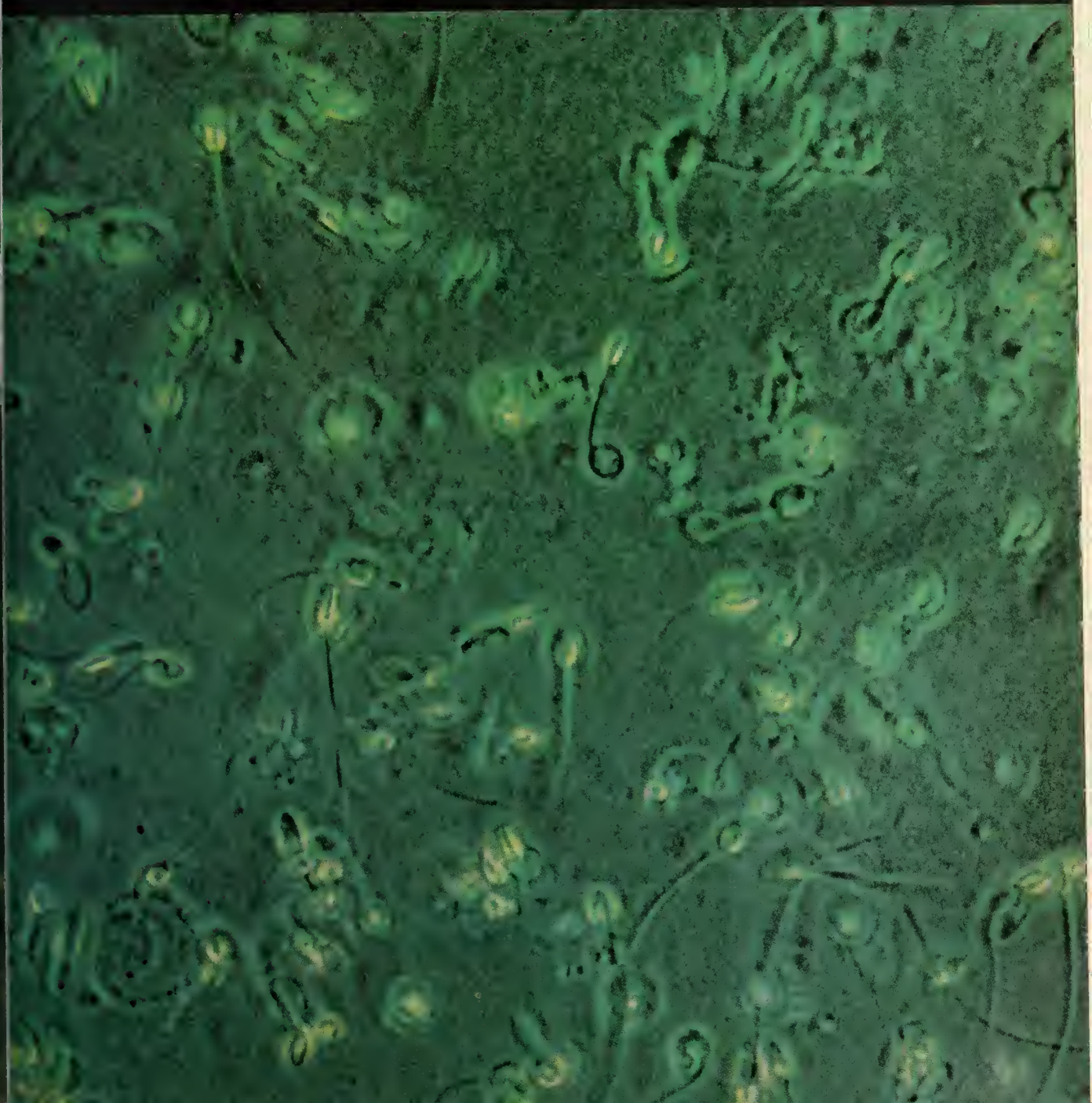
Numbers choosing other professions included in the compilations were physical scientist, 97; social worker, 91; nursing, 84; medical technologist, 62; veterinarian, 56; dentist, 30; pharmacist, 29; biophysicist, 20; and physical therapist, 18.



When the talk turns to oral contraceptives, it makes medical sense to remember low-dose Norinyl®-1.

(norethindrone 1mg. c mestranol 0.05mg)

Turn page for contraindications, precautions and side effects.



Reduction of oral contraceptive dosage to the lowest effective levels is a well-accepted principle of conservative medical practice. In keeping with this view, Norinyl is now also available as Norinyl-1, containing exactly one half the previous dosage of norethindrone and mestranol. Clinical experience has established that effective fertility control can be achieved with the same degree of reliability and safety with new Norinyl-1 when taken as directed.

What about switching patients from higher dosage forms?

In transferring patients to low-dose Norinyl-1 from higher-dosage oral contraceptives, some breakthrough bleeding may occur in the early cycles. In the majority of cases the bleeding episode is mild and self-limited. The long-term advantages of the lower dosage form should be weighed against the inconvenience of possible breakthrough bleeding in the individual patient.

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of NORINYL-1 (norethindrone 1 mg. with mestranol 0.05 mg.) in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with NORINYL-1. Therefore, if such tests are abnormal in a patient taking NORINYL-1 it is recommended that they be repeated after the drug has been withdrawn for two months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibromyomata may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. 5. NORINYL-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, and as in all cases of irregular bleeding *per vaginam*, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged NORINYL-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving NORINYL-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. 11. Because of the effects of estrogens on epiphyseal closure, NORINYL-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with NORINYL-1 may mask the onset of the climacteric. 13. The pathologist should be advised of NORINYL-1 therapy when relevant specimens are submitted.

Side effects observed in patients receiving oral contraceptives: The following adverse reactions have been observed in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretion, suppression of lactation when given immediately postpartum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals, mental depression.

Although the following side effects have been reported in users of oral contraceptives, no cause and effect relationship has been established: anovulation post-treatment, premenstrual-like syndrome, change in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption, itching.

The following occurrences have been observed in users of oral contraceptives (a cause and effect relationship has been neither established nor disproved): thrombophlebitis, pulmonary embolism, neuro-ocular lesions.

The following laboratory results may be altered by the use of oral contraceptives: increased sulfobromophthalein and other hepatic function tests, coagulation tests (increase in prothrombin, Factors VII, VIII, IX and X), thyroid function (increase in PBI and butanol extractable protein-bound iodine and decrease in T^3 values), metyrapone test, pregnanediol determination.

norethindrone — an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF.

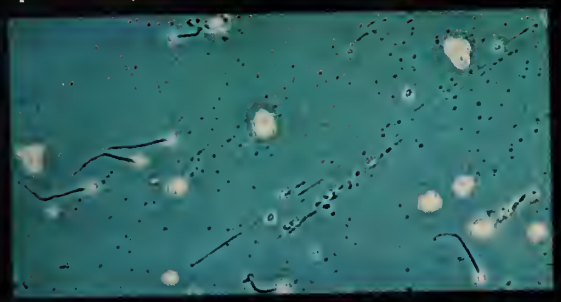
Here's why Norinyl-1 makes medical sense.

The effectiveness of Norinyl-1 as a low-dose oral contraceptive may be explained by its possible multiple action. In addition to its primary action of suppression of ovulation, Norinyl-1 may offer additional protective mechanisms... (1) creation of a cervical mucus that may be hostile to sperm penetration, and (2) development of an endometrium that may be out of phase with nidation. These effects are illustrated below.

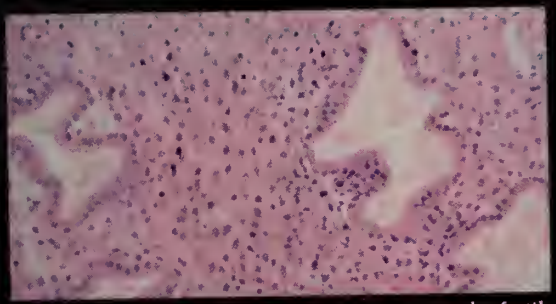
Untreated Patient



Cervical mucus at midcycle is usually thin and watery, with Spinnbarkeit (stretchability) of 15 to 20 cm.

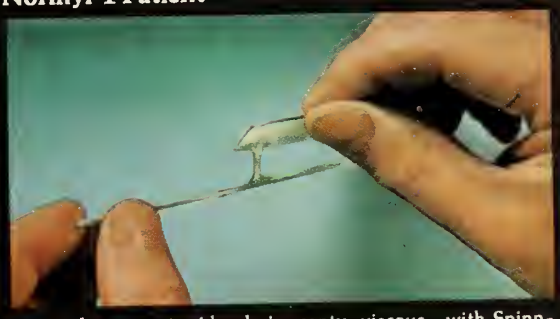


Spermatozoa appear healthy, active, freemoving.

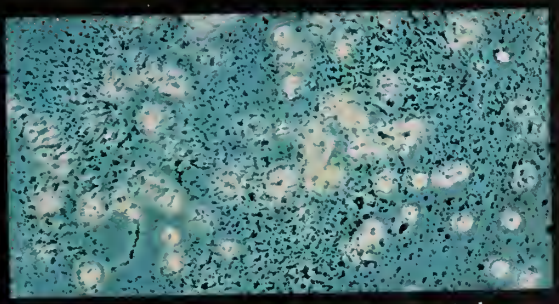


Endometrium of untreated patient is receptive to the fertilized ovum during secretory phase.

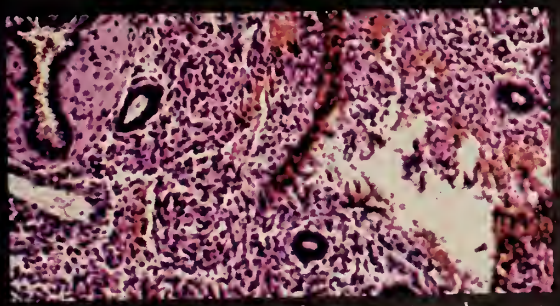
Norinyl-1 Patient



Cervical mucus at midcycle is scanty, viscous—with Spinnbarkeit of 1 cm. or less.



Immobile spermatozoa as they appear in cervical mucus taken from patient treated with Norinyl-1.



Norethindrone in Norinyl-1 accelerates secretory phase, suppresses glandular and vascular development.

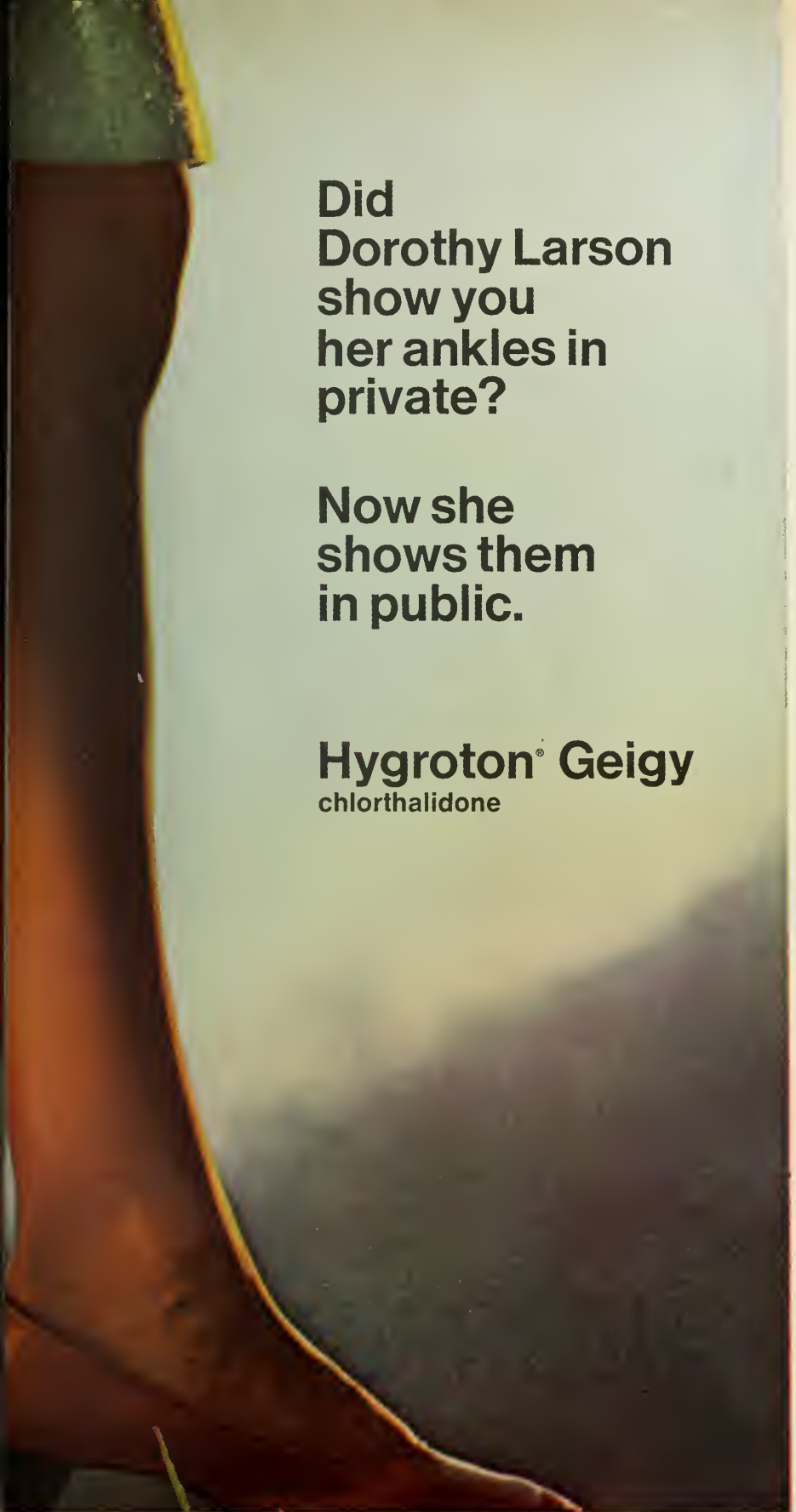
Norinyl®-1 tablets

(norethindrone 1mg ☐ mestranol 0.05mg)

- new low dose of time-proved ingredients
- established norethindrone/mestranol ratio
- lower patient cost



Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Use with caution in pregnant patients, since the drug may cross the placental barrier and adverse reactions which may occur in the adult (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn.
Precautions: Antihypertensive therapy with Hygroton should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents or other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Barbiturates, narcotics or alcohol may potentiate hypotension. Be
cause of the possibility of prog
sion of renal damage, periodic
determination of the BUN is ind
cated. Discontinue if the BUN r
or liver dysfunction is aggravat
Hepatic coma may be precipita
Electrolyte imbalance, sodium
or potassium depletion may oc
If potassium depletion should o
cur during therapy, Hygroton sh
be discontinued and potassium
supplements given, provided th



Did Dorothy Larson show you her ankles in private?

Now she shows them in public.

Hygroton® Geigy
chlorthalidone

Your office examination confirmed Mrs. Larson's ankle edema.

You prescribed Hygroton to get rid of the edema.

And you found that Hygroton is not only usually effective; it frequently costs less than other equivalent therapy.

A nice way to treat the Mrs. Larsons in your practice.

Hygroton therapy may mean troublesome side effects for some patients. And you can't prescribe it for patients with hypersensitivity to the drug or severe renal or hepatic diseases. Before writing it for your patients, please check the prescribing information. It's summarized below.

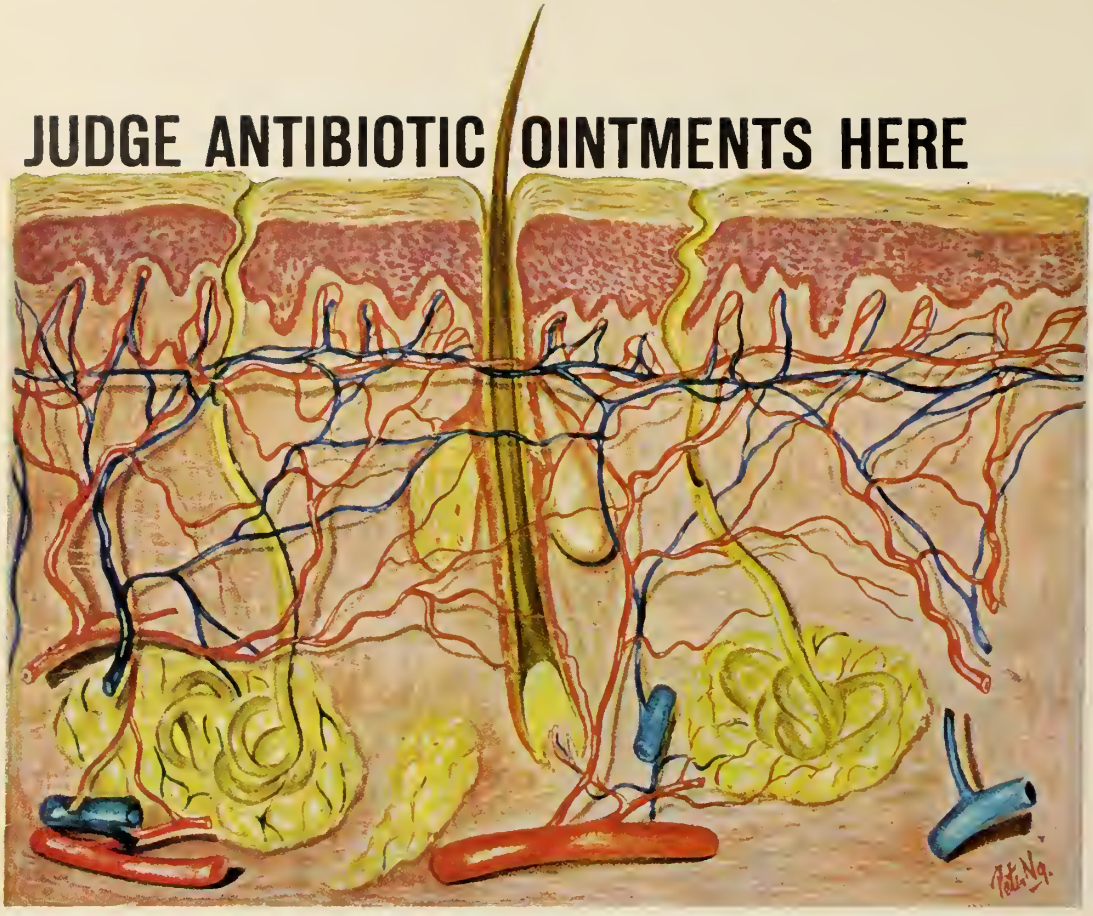
t does not have marked oli-

pecial care in cirrhosis or
ischemic heart disease and
ents receiving corticoste-
ACTH, or digitalis. Salt re-
on is not recommended.
se Reactions: Nausea, gastric
on, vomiting, anorexia, con-
on and cramping, dizziness,
ess, restlessness, hyperglyc-
, hyperuricemia, headache,
e cramps, orthostatic hypo-
tension, aplastic anemia, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization.
Average Dosage: 50 or 100 mg. with breakfast daily or 100 mg. every other day.
Availability: White, single-scored tablets of 100 mg. and aqua tablets of 50 mg., in bottles of 100 and 1000.
(B)R46-230-D
For full details, please see the complete prescribing information.

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York 10502

HY-5908

JUDGE ANTIBIOTIC OINTMENTS HERE



Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B—bacitracin—neomycin) Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and nonirritating.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'®

brand

POLYMYXIN B-BACITRACIN-NEOMYCIN OINTMENT

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

Non-Related Advertising Unethical, Says Council

Would it be improper for a physician who owned a fishing lodge or vacation spa to advertise publicly that it is owned and operated under the direction of a physician—for example, a resort advertised as being owned and operated by Dr. John Brown or John Brown, M. D.?

According to the opinion adopted by the AMA Judicial Council in November, 1967, a physician should not allow his name or the prestige of his professional status as a physician to be used in the promotion of a commercial enterprise. The physician is free to engage in business ventures outside of the practice of medicine, but such business ventures should not be permitted to trade on the reputation and standing of the medical profession.

If the physician advertises in this manner, the Council states that the public could be misled to believe that the physician's business operation is in some way medically beneficial, that the physician provides medical supervision or care, or that it is better than the competitor's facilities because it is owned by a physician.

Justifiable or not, the layman might reason and conclude that the reference to the physician-owner indicates superiority and perhaps health benefits. In addition, the physician's colleagues may contend that such an advertisement is a patent solicitation of patients and therefore unethical.

For these reasons, it is the opinion of the Judicial Council that such an advertisement would not be in the best interest of medicine and would, therefore, be improper.



Vacation trip....

Motion sickness?



This time it'll be different. Emetrol taken before the trip begins will usually prevent nausea and vomiting. Emetrol is effective and safe...most helpful where safety is most important. It acts locally—not systemically.

WILLIAM H. RORER, INC.
Fort Washington, Pa.

Emetrol®
phosphorated carbohydrate solution
emesis control



"When you're finished with baby,
maybe you can tell me what I can do about my extra pounds."

Get them while they're easily reversible.

Obesity doesn't happen suddenly. This insidious process has its beginning—and the chances of reversing it are better—during the *first 10 to 15 pounds of weight gain.* When a new dietary pattern must be established, consider the adjunctive use of BAMADEX SEQUELS. Combining the proven *anorexigenic* action of d-amphetamine with the *tranquilizing* effect of meprobamate, BAMADEX SEQUELS controls appetite throughout the day, usually with a single capsule daily.

Contraindications: Dextro-amphetamine sulfate: In hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.
Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness. Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Bamadex® Sequels®

Dextro-Amphetamine Sulfate (15 mg.) with Meprobamate (300 mg.) Sustained Release Capsules

Lederle

LEDERLE LABORATORIES
A Division of American Cyanamid Company
Pearl River, New York

361-B

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Dermatology—

Age 34; University of Iowa, 1962; seeking group or associate practice. Available July 1968. LW-302

Age 30; University of North Carolina 1962; Board eligible; seeking group or associate practice. Available July 1968. LW-303

Age 42; University of Wisconsin 1964; seeking solo or associate practice. Available July 1968. LW-304

General Practice—

Age 38; University of Oklahoma, 1955; seeking associate, institutional or industrial practice; in town of 10,000 plus population; interest in surgery. LW-305

Age 28; University of Tennessee, 1965; available November 1968. LW-306

Age 28; Medical College of Alabama 1966; seeking practice in town of less than 14,000 population to fulfill scholarship requirements. Available 1968. LW-307

Age 34; University of Tennessee 1958; seeking solo, group, industrial, or associate practice. Available immediately. LW-308

Age 28; Baylor University College of Medicine 1965; seeking group, associate, industrial, institutional or aviation medicine practice. Available immediately. LW-309

Age 44; Medical College of Alabama, 1967, seeking associate practice in town of 12,000 plus population in central or south Alabama. LW-310

Internal Medicine—

Age 34; Hahnemann Medical College 1959; Board eligible, National Board; seeking solo, group, or associate practice. Available immediately. LW-311

Age 32; Albany Medical College, 1962; Board eligible; National Board; seeking solo, group, or associate practice. Available July 1968. LW-312

Age 29; State Univ. of New York at Buffalo, 1963; seeking group or institutional practice. Available July 1968. LW-313

Age 36; Georgetown Univ., 1956; Board eligible, seeking group, associate or institutional practice. LW-314

Age 34; University of Tennessee, 1958; American Board Certified, seeking group, industrial, or institutional practice. Available Spring 1968. LW-315

Age 37; Duke University 1956; Board certified; seeking group, associate or institutional practice. Available July 1968. LW-315A

Obstetrics—Gynecology—

Age 34; Medical College of Virginia 1961; Board eligible; seeking group or associate practice. Available September 1968. LW-316

Age 31; University of Tennessee 1962; Board eligible; seeking solo, group or associate practice. Available July 1968. LW-317

Age 31; University of Tennessee 1962; Board eligible; seeking group or associate practice. Available August 1968. LW-318

Ophthalmology—

Age 31; Louisiana State Univ. 1962, seeking solo or associate practice. Available July 1968. LW-319

Age 33; Univ. of Tennessee, 1965, seeking solo, group or associate practice. Available July 1969. LW-320

Pediatrics—

Age 35; University of Vermont 1961; Board certified; seeking group or associate practice. Available October 1968. LW-321

Age 30; Medical College of Alabama, 1962; Board eligible; seeking associate or assistant practice. Available February 1968. LW-322

Age 31; Vanderbilt University 1963; Board eligible; seeking group practice. Available August 1968. LW-323

Age 28; University of Texas, Southwestern, 1963; Board eligible; seeking group or associate practice. Available September 1968. LW-324

Age 36; Medical College of Alabama 1957; Board eligible; seeking group or associate practice. Available immediately. LW-325

Age 26, Univ. of Tennessee, 1965; Available mid- 1968. LW-326

Pathology—

Age 39; Louisiana State University 1956; Available October 1968. LW-327

Surgery—

Age 38; San Marcos University, Peru, 1958; Board eligible; seeking group or associate practice. Available immediately. LW-328

Age 36; Univ. of California, 1960; Board certified; seeking group or associate practice. Available September 1968. LW-329

Age 31; St. Louis University 1963; Board eligible; seeking solo or associate practice. Interested in General Surgery with some General Practice. Available July 1968. LW-330

Age 33; Indiana University 1959; Board eligible; seeking group or associate practice. LW-331

LOCATIONS WANTED (Continued)

Age 31; Medical College of Alabama 1961; Board eligible; National Board; seeking associate practice in town of 20,000-80,000 population. Available immediately. LW-332

Urology—

Age 32; University of Wisconsin 1961; Board eligible; seeking solo, group or associate practice. Available July 1968. LW-333

Physicians Wanted

General Practitioners—

Opportunity in rapidly expanding community of 10,000-12,000 population adjacent to metropolitan center in north Alabama. Office space free for six months and equipment available. Staff privileges at nearby hospitals. PW-195

For town of 3,600 population in trade area of 5,000-7,000 within 100 miles of two large cities and the Gulf Coast. 50-bed hospital located in the town. Office space available. Agricultural and expanding industrial area. Several churches and two schools. Recreational activities in the town as well as nearby—golf course, hunting and fishing. PW-196

For town of approximately 1,000 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-197

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-198

For town of approximately 1,000 population in population center of 10,000 located in Southwest Alabama within 90 miles of the Gulf coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-199

For town with 1,000 population in trade area of 5,000 Southeast Alabama. Nearest large city with population of 50,000 is 55 miles. New clinic available rent free. No physicians in the town. Hospitals in surrounding town within 30 miles. Several churches and schools. PW-200

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. One physician died recently. Hospital and nursing home in the city. PW-201

For town of 1,000 plus population in west-central Alabama in trade area of 20,000. Clinic available. Nearest city of approximately 70,000 population is located a distance of 17 miles. Farming, cattle, timber, and manufacturing plants are principal resources of the area. Churches, schools, and recreational advantages. PW-202

For solo practice in town of approximately 17,000 population located in east central Alabama. 48-bed general hospital. Arrangements available for office space. Excellent recreational advantages which include hunting, fishing and water sports. City owned airport. Numerous civic clubs. Excellent schools and churches. Expanding industrial and agricultural area. PW-203

Physician needed to associate with a large industrial concern in a northern Alabama metropolitan area of over 100,000. Four physicians on staff. Starting salary $16,000-$18,000 depending on qualifications. Excellent working conditions and fringe benefits. Good advancement opportunities. PW-204

Opportunity for one or more doctors in rapidly expanding eastern suburb of Birmingham. Attractive brick building consisting of 10 rooms and adjacent parking facilities. PW-205

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Surgeon—

Opportunity for a Board eligible or Certified surgeon to practice in city of over 78,000 population in north Alabama. Equipment available. PW-208

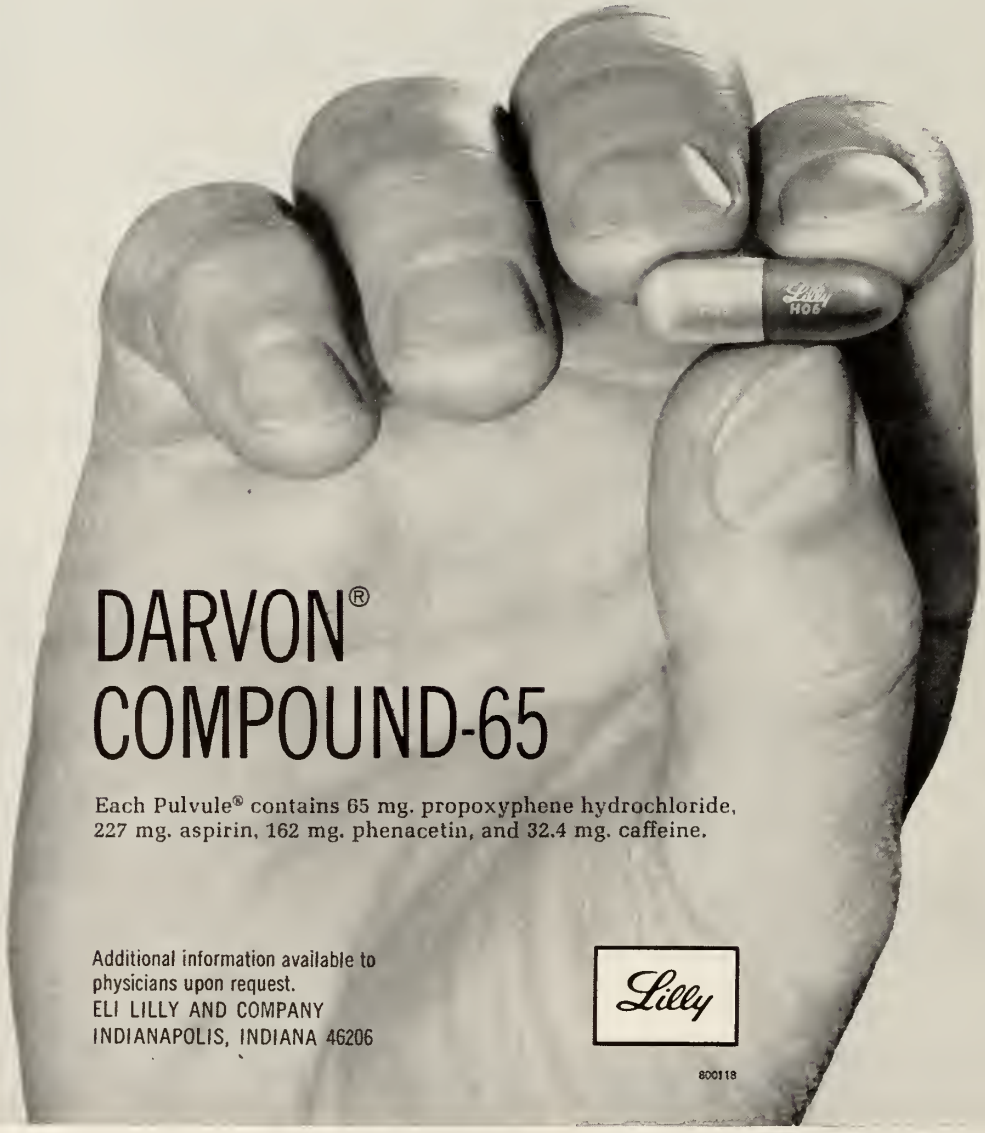
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Medical Superintendent of 225 bed tuberculosis sanatorium with a building program in Birmingham. Salary and job description negotiable. Must be able to obtain Alabama license. PW-210

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THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

Published Under the Auspices of the Board of Censors

Volume 37 May, 1968 No. 11

Emphysematous Cholecystitis

Dabney H. Brannon, M. D., F. A. C. S.

Montgomery, Alabama

Acute clostridial cholecystitis or gas gangrene of the gallbladder has been reported in the literature most often as *emphysematous cholecystitis* or *pneumocholecystitis*. The disease was first described by Stolz in 1901.[1] The preoperative diagnosis by X-ray study of the abdomen was stressed by Hegner in 1931.[2] The disease is rare, and Bockus in 1965 was able to accumulate less than 100 cases from the world literature.[3] However, with increased use of preoperative X-rays of the abdomen the disease has recently been recognized more frequently. The purpose of this paper is to report a new case and to briefly review the literature with particular regard to treatment.

With emphysematous cholecystitis the characteristic X-ray appearance is a distended gallbladder with an air-fluid level surrounded by a ring of gas infiltrating the gallbladder wall. The causative organism most often is Clostridium welchii, with Escherichia coli being the next most common. The disease usually affects the older age group and appears to be much more common in diabetics. The patients are usually quite ill and mortality has remained high. Bockus has estimated an overall mortality of 25 per cent.

Probably the ideal course of management would be early control by conservative measures followed later by elective cholecystectomy. Good results have been obtained with early cholecystectomy where symptoms are less than 48 hours duration and gaseous infiltration of the gallbladder as seen by X-ray has not yet occurred. In such a situation there may be some uncertainty about the diagnosis because of the absence of gaseous infiltration into the gallbladder wall. Likewise, successfully managed cases with conservative measures alone have been reported.[4, 5] For obvious reasons cholecystostomy has not often been of value. Use of gas gangrene antitoxins has not been of particular value and one must always consider the anaphylactic threat of antitoxin. The practical value of hyperbaric oxygen therapy has not yet been established.[6] In vitro studies have indicated tetracycline with penicillin in

1. From the Surgical Service of the Veterans Administration Hospital, Montgomery, Alabama. Published with the approval of the Department of Medicine and Surgery of the Veterans Administration. The statements and conclusions expressed by the author are the result of his own studies and do not necessarily reflect the opinion of policy of the Veterans Administration.

2. Staff Surgeon, Veterans Administration Hospital, Montgomery, Alabama.

high dosages to be the drugs of choice with the clostridial infections.[7] Streptomycin has been most effective against E. Coli. Most of the deaths in reported operative cases and nearly all deaths in the non-operative cases have been a direct result of overwhelming anaerobic infection.

Management must then be determined by individualization of each patient with particular reference to the time sequence in the development of the disease.

Case Report

(W. J. S.) A 36-year old white male was hospitalized March 18, 1967 with severe right upper quadrant pain, vomiting and abdominal distention for 48 hours duration. There was a six-month past history of recurring episodes of mild right upper quadrant discomfort with nausea and bloating especially following heavy meals. The patient was recovering satisfactorily from a broken leg sustained in a motor accident several months previously. Prior to onset of his present illness his general health was satisfactory. Upon admission the patient was acutely ill with a temperature of 101° F. and severe right upper quadrant tenderness. There was no jaundice. WBC was 17,650. Plain films of the abdomen disclosed a characteristic X-ray picture of acute emphysematous cholecystitis. (Figures 1 and 2). With vigorous conservative measures improvement was prompt and sustained; consequently, elective cholecystectomy was planned at a later date. However, 16 days later there was an abrupt recurrence of the initial acute signs and symptoms necessitating immediate surgery. Laparotomy revealed perforated cholecystitis with local abscess formation. There was no crepitation noted locally. The gallbladder contained multiple small stones. Cholecystectomy was carried out. Bacteriologic studies of the gallbladder confirmed Clostridium welchii as the causative organism. The postoperative course was uneventful and the patient was discharged from the hospital 15 days following surgery. The patient was well and symptom-free when seen for follow-up examination ten months later.



Figure 1



Figure 2

Summary

1. The surgeon today must be aware of acute cholecystitis caused by gas-forming organisms. He must take steps to recognize it early and carry out proper treatment accordingly.

2. In the early uncomplicated case with

symptoms of less than 48 hours duration and no evidence of gaseous infiltration into the gallbladder wall, immediate cholecystectomy must be considered.

3. When seen later after extension into or beyond the wall of the gallbladder, conservative management with later elective cholecystectomy should afford the best result.

4. When the presence of co-existing disease and other factors increase the surgical risk one must keep in mind reports of successful non-operative management.

5. The keystone to the successful management of acute emphysematous cholecystitis appears to be individualization and close observation.

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Mass Immunization Warnings Criticized

The American Academy of Pediatrics has cautioned against "undue emphasis" in requiring public warnings regarding isolated complications or hazards which might result from use of vaccines in mass immunization programs.

Such warnings, the Academy pointed out, "would adversely affect the health of the public by unwarrantably diminishing participation in these programs."

The AAP Executive Board, meeting in Atlanta during the organization's spring session at the Regency Hyatt House, expressed its concern over a recent court decision imposing liability on a drug manufacturer for not warning the public participating in a mass immunization program about remote risks involved in receiving oral poliovirus vaccine.

The Board strongly endorsed recommendations set forth by the Academy's Committee on Control of Infectious Diseases concerning the recent two-to-one decision of the United States Court of Appeals for the Ninth Circuit in the case of Davis vs. Wyeth Laboratories, Inc., Jan. 22, 1968.

Emphasizing the possible implications of this decision upon important public health programs, the Academy, in its statement, pointed to several types of immunization programs that would be affected by the court decision, including those currently administered by schools, public health departments, community health programs such as Head Start, and others.

"The decision may have deleterious effects both on the conduct of, and public participation in, efforts directed against many other infectious diseases such as measles, diphtheria, whooping cough, tetanus, and others," the AAP's statement cautioned. "In the opinion of the AAP Committee on Control of Infectious Diseases, the benefits of these programs are tremendous."

Involuntary Hospitalization Of The Mentally Ill In Alabama

A Critical Analysis*

John R. Cranton, M. D.**

Birmingham, Alabama

I. Introduction

Most physicians, during the course of their medical practice, will inevitably be confronted with the decision of whether or not to recommend commitment of a patient to one of the State or Federal Institutions. But yet, the entire procedure of commitment carries with it broad social and legal implications which are the least understood of any that the Alabama physician may be associated with during his entire medical career. The sudden realization by the patient that he has been confined to a mental institution can be very traumatic, and the impact may even worsen when done against his will.

The general apathy with regard to the mentally ill by the American public is gradually disappearing. As evidenced in a blistering article by Albert Q. Maisel (The Reader's Digest, February, 1962), the general public has become more critical of the procedure.[7] In his article, "The Tragedy of Sane People Who Get Put Away," there is constant attack of the legal statutes which govern involuntary hospitalization of the mentally ill. But criticism is not confined only to the general public. Both the medical and legal professions have become increasingly aware of the role for which they are responsible. In Alabama, the recommendations of the Task Force that dealt with the legal considerations of the Alabama Mental Health Plan (1965), support this fact.[10]

The need for further revision of the laws which govern voluntary hospitalization is apparent. So, this leads me to the purpose of this paper, which is to review and discuss in a critical manner the commitment law of Alabama, along with its medico-legal and social implications. Since Alabama does not have provisions for non-judicial hospitalization, judicial hospitalization will only be considered under the scope of this paper.

II. Origin of the Commitment Law

The authority to commit initially existed in England under the Common Law. This provision was subsequently embodied in American Law, with the establishment of the colonies.

Unlike the present day interpretation, the right to deprive a mentally ill person of his freedom was initially intended to take care of emergency cases only; those persons who were dangerous to themselves or others. They could be taken into custody by any person, and temporarily confined as long as it was handled in a humane way and permanent legal disposition could be rendered within a respectable period of time. However, the ultimate responsibility would fall under police authority. This did not mean that a person could be confined indefinitely, which has often been the case. In fact, no person had the right to incarcerate an insane person

*Delivered at Psychiatric Departmental Scientific Meeting June 29, 1967.

**Instructor in Psychiatry, Chief Resident, Medical College of Alabama.

more than temporarily without an appropriate judicial order.

With establishment of the various state hospital systems, it was initially acceptable for a person to be incarcerated without any legal adjudication of the question of mental illness. However, this eventually found disfavor, and now the mentally ill cannot be committed to an institution without an appropriate court order. Under Common Law, an insane person can be confined anywhere. The most common places used have been jails, houses, penitentiaries, and hospitals.[3]

III. Involuntary Hospitalization

Involuntary hospitalization or commitment, may be defined essentially as the legal procedure which confines the mentally ill to an appropriately designated hospital. In Alabama, there are three institutions maintained by the State for the care of the mentally ill, and defective. They are (1) Bryce Hospital, (2) Searcy Hospital, and (3) Partlow State School and Hospital. Veterans may be confined to hospitals maintained by the Veteran's Administration, but only upon expressed approval by the respective hospital.

In accordance with the Alabama Code (45.205), to be eligible for admission the "person shall be found by a proper court sufficiently deficient or defective mentally to require that for his own or others welfare, he be removed to the insane hospital for restraint, care, and treatment." The Alabama Code also makes specific provisions for hospitalization of the mentally deficient (Alabama Code 45.239).

At this point, it may well be worthwhile to define what is meant by mental inferiors and the feeble-minded. According to the Alabama Code (45.236) it "shall include every person with such a degree of mental defectiveness from birth or from early age, that he is unable to care for himself and to manage his affairs with ordinary prudence, or that he is a menace to the happiness or safety of himself or of others in the community, and requires care, supervision and control either for his own protection or others. It is specifically recognized that the greatest danger which the feeble-minded constitutes to the community lies in the frequency of passing on of mental defects from one generation to another." It is interesting to note that although Alabama does not make any specific provisions for alcoholics and epileptics, many are committed annually. Also, Alabama does not specifically provide for hospitalization of drug addicts to facilities maintained by the State. The Alabama Code (22.249; 22.250) only provides for commitment of drug addicts to a private institution, or respective federal hospital. And, commitment to a private hospital can only be done with expressed approval of the State Board of Health. Unlike other commitment procedures, hospitalization of the drug addict is handled through either the circuit or federal courts. Occasionally, drug addicts have been known to be committed to state facilities, but only when they were eligible for admission under the provisions set forth by Title 45.205.

The legal procedure for commitment to the State hospital in Alabama is one of the least understood procedures as I previously mentioned. The necessary papers that have to be furnished to the Probate Court (The Juvenile Court for those patients that are under 21 who are being committed to Partlow) are (1) an application form, (2) the patient history blank, and (3) a letter from a licensed physician practicing in the State of Alabama. The first two requirements are the responsibility of a relative or a friend of the patient. The physician's letter by law is required to certify that the physician has examined the patient, and is to include the mental ailments and recommendation. With regard to petitioning the court, the doctor should remember that it is not his responsibility to determine who this should be. If there is no family or friend available or willing to accomplish this, the sheriff or some welfare official has been known to be the

petitioner. Some mention here should be made with regard to litigation, and in order to avoid difficulty, the physician should follow these general rules; limit notations about spoken words and behavior to what is observed; do not become involved in commitment of family, relatives, or business associates; do not evaluate heavily sedated patients; do not over charge the patient or his family; state informant's name and relationship in the letter if there is information used other than that acquired from the patient; keep a carbon copy of the letter; interview the patient alone; enter the date of examination on the letter, and accomplish the required physical examination. It can often be embarrassing if the patient is committed as a result of a physical illness.[1]

Upon receipt of the necessary papers, the Probate Court requests admission through the Superintendent of Alabama State Hospitals, who in turn notifies the court of the disposition, whether it be acceptance or refusal. It is at this time that the petitioner, with one witness or more, is required to report to the court to testify. The patient will also be served notice prior to the hearing to testify. Notice can often be traumatic to the patient and it has been suggested by many that in such cases where it would be harmful, the constitutional rights of the patient could be preserved if the family or an attorney received the notice.[6] Although not required by the court, the patient may be present either before or at the time of his hearing. It is interesting to note that Alabama does not provide legal counsel for the patient, either the right or the appointment by the court. In those cases where condition precludes presence at the hearing, it has been suggested that they should be represented by the court if they are unable to furnish legal counsel through their own means.[6] A jury trial is provided for by the statute, but it is left to the discretion of the judge (Alabama Code 45.210). Specifically, there is no provision for mandatory jury trial, and if demanded by the patient, it is granted as a right under the federal constitution. An additional criticism of the hearing has been directed toward the physical setting. Many have proposed that the same procedure could be accomplished in a setting that would not be so injurious to the patient, but yet retain its legal status.[6]

Once committed by the court, the patient then will usually be conveyed to the appropriate hospital much like a convict to a penal institution. This is often accomplished by a sheriff or a county transfer agent. An occasional patient may be conveyed by relatives and this is encouraged by the court. Hospitalization has thus served to *protect society* and the patient in the legal sense, and *provide treatment and rehabilitation* in the medical sense.

Occasionally, a patient may be brought to the hospital without the appropriate committing certificate from the probate judge of the county in which he resides. In the case of Bryce Hospital (Alabama Code 45.220) the probate judge of Tuscaloosa County has the authority to commit, but he is required to notify the probate court of the county in which the individual resides. With regard to Searcy Hospital (Alabama Code 45.221) any justice of the peace convenient to the hospital has the authority to commit, but he must also notify the probate court of the county in which the patient resides.

In the case of acutely dangerous individuals (Alabama Code 45.432), the law provides for the arrest and confinement without notice or hearing. This is only temporary until appropriate judicial action is accomplished. However, this places the burden of responsibility upon the officer or person making the arrest to prove the patient's insanity and exposes him to litigation.[9] There is an apparent need for the police officer to have the right to transport the mentally ill person to the hospital, especially if acting in good faith. Some cities even have specially trained personnel for psychiatric cases. The ultimate end would be to provide some acute hospitals and keep the mentally ill out of

jails. Upon occasion, those mentally ill persons refusing to leave their homes have been taken into custody by the sheriff under the provisions of a vagrancy warrant, which is issued by the county criminal court. This occurs usually on weekends when the probate court is closed. One point the doctor should remember is to never convey a patient to the hospital. He may save himself from a charge of kidnapping later on if the patient is subsequently found sane. Also, he should never be a part of any deception. He should always tell the patient that he is to be hospitalized even though it may take force.[1]

Unfortunately, Alabama does not provide for emergency detention of the mentally ill. The Alabama Code (45.432) only provides for violent patients, and therefore, one can argue that it is basically wrong to use this provision for quiet patients. But yet, one certainly can realize that psychotic patients may be potentially violent, and severely depressed persons can inflict serious harm upon themselves.[1] There is certainly a large amount of confusion in this area, and it needs clarification since many mentally ill persons are often detained by police in jails. Some states that do not have emergency detention procedures provide for temporary or observational hospitalization, which allows commitment for a certain period of time during which the individual is observed, diagnosis is established, and minimum treatment is initiated. At the end of the specified time the patient is either discharged or has his case reviewed.[6]

Some mention should be made here of the judicial order itself. The procedure does not constitute a finding of incompetency. However, at the time of commitment the court order declares the person as being insane and it is not until discharge that the Superintendent informs "the Probate Court of such certificate of recovery, the court shall enter a decree declaring the patient restored to sanity" (Alabama Code 45.218). The use of the term "insane" only serves to create confusion between the legal concept of incompetency and hospitalization, since it has been applied indiscriminately to both.

IV. The Rights of the Hospitalized Patient

A brief mention should be made here about the rights of the hospitalized patient. The physician as such does not represent the legal structure that results in the patient's loss of certain rights. However, he contributes to the procedure and therefore, should be aware of the ultimate result. The judicial order does not constitute a true finding of incompetency, but nonetheless, the rights of the individual are affected in varying degrees. Of course, the primary rights of the patient to be affected are the "freedom to be at large" and the right to refuse standard medical therapy.[6]

As I previously mentioned, the judicial order uses the term "insane," and although this does not represent a legal finding of incompetency, in reality it has been known to create problems with regard to personal and property rights. For example, a recommended procedure is that when a patient devises a will, the document should be accompanied by a statement from the hospital superintendent declaring the patient competent at the time the document was contracted. I feel that this would not be necessary with a competent patient if the judicial order only indicated the need for hospitalization and excluded the term "insane." More specifically, the only personal right directly affected by hospitalization is the right to vote (Alabama Code 17.15). If there has not been an adjudication of incompetency, the right to vote can be recovered at the time of discharge. However, this is not done automatically. The individual must first report to the probate court and be declared sane (Alabama Code 45.218). It has been suggested that the hospitalized patient should not forfeit any of his personal or property rights, except when there has been a legal adjudication of incompetency. A recommended procedure is where all hospitalized persons are

examined for incompetency rather than as the result of a specific request.[6]

The committing physician should also be aware of the fact that there are certain rights that are *not* guaranteed by statutory provisions. Most of these are related to hospital policy covering use of mechanical restraints, major medical treatment, correspondence and visitation, unwarranted hospitalizations, transfer to other institutions, periodic examinations and employment. Abuses of these rights have been reported in other states. One account tells recently of a child that was placed in a straight jacket on a ward for 24 hours. Another account tells of a hospital's failure to allow correspondence between two patients and their attorneys.[6] The abuses have been frequent enough to point to the need of appropriate legislation to protect and guarantee the rights of the hospitalized patients in Alabama. Further elaboration of this problem will not be covered under the scope of this paper. However, the committing physician should be aware of those rights the patient loses and that are *not* guaranteed by statutory provision.

V. Conclusion

Dr. Karl Brandt, who for years was in charge of Adolph Hitler's program of euthanasia, once said, "the life of an insane person is not in keeping with human dignity."[2] This statement was made approximately 20 years ago, but yet, it is unfortunate that we cannot deny that this same statement can also be applied to conditions that exist today in Alabama. A very appropriate criticism of the legal structure of the commitment procedure can be found embodied in the remarks of the Group for the Advancement of Psychiatry, "the worst features of contemporary commitment laws are: legal service and notice to the patient; insistence of personal appearance in court; exposure of patient as public spectacle and the public record as such; emphasis of lay judgement as in trial by jury; identification of mental illness and criminality by similarity of procedure use of anachronistic terminology"[6] Also for many mentally ill persons, there is no need for judicial commitment. They could be handled very effectively through a voluntary hospital procedure which would remove the stigma and red tape of judicial commitment, and comply with the recommendations of the Alabama Mental Health plan. We should not require patients to unnecessarily submit to the trauma of court procedure or jail detention when the only difficulty is mental illness. Jailing of mentally ill persons except in the case of emergencies should be eliminated. We should treat mentally ill persons as patients, not handle them as quasi criminals.[8] An additional criticism should also be directed toward the physician. Familiarity with the procedure is not enough. He should recognize the responsible role which he has, and exercise the same professional courtesy which he extends in recommending hospitalization to a physically ill or handicapped person, and anything less is not in the best interest of the patient.

The need now is for a complete and comprehensive re-appraisal of the commitment procedure by the legal and medical professions in the State of Alabama. Recommendations should be made and support of the general public should be solicited. Man's inhumanity to fellow man only serves to preserve the tragic indignities that are still bestowed upon our mentally ill.

VI. Summary

This paper presents a critical review of involuntary hospitalization in Alabama, with special emphasis on the commitment procedure. The statutory provisions that are provided by Alabama have been shown to have their origin in the Common Law of England.

There are three state facilities provided for the commitment of the mentally ill along with hospitals maintained by the Veterans Administration. The Alabama Code defines eligibility, but unfortunately, does not pro-

vide for specific admission of alcoholics, epileptics, and drug addicts to State facilities.

The legal procedure for commitment requires that three papers be supplied to the court: (1) an application form by the relatives or friend, (2) patient's history blank by the relative or friend and, (3) letter from a licensed physician practicing in the State of Alabama. The physician should remember his responsibility only lies with the letter to the court, but it should be executed in a manner commensurate with his professional training. The court commits, although the ultimate approval of admission to the hospital rests with the Superintendent.

Criticism of the commitment procedure points to the need for new legislation or revision of present statutes related to notice, the hearing and its physical setting, transportation to the hospital, confinement of the mentally ill to jails, police jurisdiction, and the judicial order. Also, the need for an emergency detention provision is essential in view of the urgent medical needs of an acutely psychotic or severely depressed patient. For many mentally ill persons there is no need for judicial commitment, and therefore, they could be handled throuh a voluntary procedure if the appropriate provision was adopted.

The committing physician should also be aware of those rights that the patient loses, or, are not guaranteed by law. Specifically, the right to vote is the only one lost. However, there are several *not* guaranteed. They are related to hospital policy covering use of mechanical restraints, major medical treatment, correspondence and visitation, unwarranted hospitalizations, transfer to other institutions, periodic examinations, and employment. Thus, there is an apparent need for appropriate legislation to protect and guarantee the rights of the hospitalized patient in Alabama.

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Erratum

In the March issue of the Journal, a 3-page advertisement appeared for Sinudyne. This advertisement should **not** have appeared at this time since the product is not yet on the market.

We regret this error and wish to absolve Bristol Laboratories of any responsibility for the appearance of this advertisement. We inserted this ad by mistake.



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"The danger involved in prescribing dependency producing medication for relief of anxiety lies in the fact that we do not know in advance the dependency proneness of the individual."[1]

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Vistaril can fulfill the need for tranquilization without creating a new need—dependency.

Vistaril calms anxiety and agitation quickly—usually begins to work in 15-30 minutes. And, in more than ten years of clinical use, after more than a billion doses to date, there have been no reported instances of dependency on hydroxyzine.

When the need for antianxiety medication is reduced or no longer exists, Vistaril dosage may be lowered or discontinued without ill effects.

Recommended starting dose, anxious menopausal patient, 50 mg. t.i.d.

With Vistaril, it is as easy to stop therapy as it is to start.



vithout
reating
new one.

Contraindications: Hypersensitivity to hydroxyzine. The parenteral solution, for intramuscular or intravenous use, *must not* be injected subcutaneously or intra-arterially.

Hydroxyzine, when administered to the pregnant mouse, rat, and rabbit induced fetal abnormalities in the rat at doses substantially above the human therapeutic range. Clinical data in human beings are inadequate. Until adequate data are available to establish safety in early pregnancy, hydroxyzine is contraindicated during this period.

Precautions: Hydroxyzine may potentiate the action of central nervous system depressants such as narcotics and barbiturates. In conjunctive use, dosage for these drugs should be decreased as much as 50%. Because drowsiness may occur, patients should be cautioned against driving a car or operating dangerous machinery. The usual precautions for intramuscular injection should be followed; soft-tissue reactions have rarely been reported when proper technique has been used. Hydroxyzine parenteral solution for intramuscular use should be injected well within the body of a relatively large muscle. In adults, the preferred sites are the upper outer quadrant of the buttock (i.e., gluteus maximus), or the mid-lateral thigh. In children, preferably the mid-lateral muscle of the thigh. In infants and small children the upper outer quadrant of the gluteal region should only be used when necessary, as in burn patients, in order to minimize the possibility of damage to the sciatic nerve. The deltoid area should be used only if well developed, such as in certain adults and older children, and only with caution to avoid radial nerve injury. Injections should not be made in the lower and middle thirds of the upper arm. Aspiration should be done to help avoid intravascular injection. On reported intravenous injection a few instances of digital gangrene have occurred distal to the injection site, considered to be due to inadvertent intra-arterial injection or possibly periarterial extravasation. Therefore, particular caution (aspiration and site injection) should be observed to insure injection only into intact veins; avoid either intra-arterial injection or extravasation. Intravenous administration should be accomplished slowly, no faster than 25 mg. per minute, and not to exceed 100 mg. in any single dose. In order to avoid possible adverse effects it is recommended that hydroxyzine parenteral solution be diluted to at least 50 cc. with sterile normal saline and administered over a period of four minutes or more, preferably into the tubing of a running intravenous infusion.

The intravenous administration of this drug is not recommended for children under 12 years of age.

Adverse Reactions: Drowsiness may occur; if so, it is usually transitory and may disappear in a few days of continued therapy or upon dosage reduction. Dryness of the mouth may occur with higher doses. Involuntary motor activity, including rare instances of tremor and convulsions, has been reported, usually with higher than recommended dosage.

When this product is given intravenously undiluted, minimal amounts of intravascular hemolysis occur at the site of injection. Giving the maximum recommended intravenous dose (100 mg.) to adults results in immediate transient hemolysis with the liberation of a total of 2-3 grams of hemoglobin, which, in some individuals, can cause small amounts of hemoglobinuria. This compares with the normal red cell destruction from which approximately 8 Gm. of hemoglobin are liberated every 24 hours. If the hydroxyzine is diluted with 50 cc. of normal saline and given during a period of four minutes or more, this phenomenon does not occur.

Supply: Vistaril (hydroxyzine pamoate) Capsules: Equivalent to 25 mg., 50 mg., 100 mg. hydroxyzine HCl. Vistaril (hydroxyzine pamoate) Oral Suspension: Equivalent to 25 mg. hydroxyzine HCl per 5 cc. teaspoonful. Vistaril (hydroxyzine HCl) Parenteral Solution: 25 mg./cc.—10 cc. vial and 50 mg./cc.—2 cc. and 10 cc. vial; Isoject,® 25 and 50 mg. per cc., 1 cc. per unit.

More detailed professional information available on request.

References: 1. Greenhouse, H.R.: Medication and the Dependent Personality, Symposium of Non-Narcotic Drug Dependency and Addiction, The Amer. Psychiat. Assn., N.Y. County Dist. Branch, New York, N.Y., March 10, 1966.

Pfizer LABORATORIES DIVISION
New York, N.Y. 10017


burning
itching
discharge
of trichomonal vaginitis...

Flagyl®

tablets/inserts

brand of

metronidazole

brings

- clinical cures
- microscopic cures
- culture cures

For the most widespread form of vaginitis the most widely successful therapeutic agent, Flagyl, is clearly indicated.

In trichomonal vaginitis, most physicians have reported a cure-rate of 95 per cent or more with Flagyl when infected male partners are treated concurrently and when treatment is repeated for occasional refractory infections in women.

Among the few patients who do not respond to Flagyl are those who may not have taken the prescribed dosage and those who may have been reinfected.

This high rate of cure obtained with Flagyl is unparalleled. Only systemically active Flagyl reaches the hidden reservoirs of reinfection in male and female genitourinary tracts.

Indications: Flagyl is indicated only in the treatment of trichomoniasis in both the male and female.

Contraindications: Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution: Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side effects: Infrequent and minor side effects include nausea, metallic taste and furry tongue. Gastrointestinal disturbances, flushing and headache sometimes occur, especially with concomitant ingestion of alcohol. The taste of alcoholic beverages may be altered. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness or paresthesia of an extremity, joint pains, confusion, irritability, weakness, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

Dosage and Administration: In women: one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.

In men: When trichomonads are demonstrated, one 250-mg. oral tablet twice daily for ten days in conjunction with treatment of his female partner.

Dosage Forms: Oral tablets—250 mg.
Vaginal inserts—500 mg.

SEARLE

Research in the Service of Medicine

The AMBAR SCRAPBOOK of

Obesity Oddities

FACT & LEGEND



GALLSTONES HAVE BEEN FOUND IN 60% OF PATIENTS WHO WEIGH MORE THAN 300 POUNDS, 45% HAVE DIABETES, AND 15-TO-20% HAVE HIGH BLOOD PRESSURE.

SOURCE: DUNCAN, G.G.: SCIENCE NEWS LETTER, 83:403 (JUNE 29) 1963.

NAPOLEON BONAPARTE

LOST THE BATTLE OF WATERLOO BECAUSE HE WAS TOO FAT!

ACCORDING TO THE NEW YORK TIMES OF APRIL 13, 1890, THE DEFEAT OCCURRED BECAUSE HE FAILED TO CHECK HIS INTELLIGENCE INFORMATION. "IT WAS A MATTER OF MERE INDOLENCE AND THIS INDOLENCE WAS CAUSED BY FAT."

SOURCE: JAMA 186:65 (OCT. 5) 1963.



THE BOOK **"PRAY YOUR WEIGHT AWAY"** URGES READERS TO "ASK GOD TO HELP YOU LIKE EXERCISE" FOR 15 MINUTES A DAY.

SOURCE: REV. C.W. SHEDD: NEW YORK, LIPPINCOTT, 1958.



DIET DROPOUTS

ACCORDING TO DRS. SHIPMAN AND PLESSET "APPARENTLY NO DIETER SUCCEEDS WHO IS VERY ANXIOUS OR DEPRESSED."* THE AMBAR FORMULA PROVIDES **METHAMPHETAMINE** TO HELP **ELEVATE** THE **MOOD** AND **PHENOBARBITAL** TO HELP REDUCE **ANXIETY.**

*SOURCE: ARCHIVES OF GENERAL PSYCHIATRY 8:26 (JUNE 1963).

CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.)
(Warning: may be habit forming).

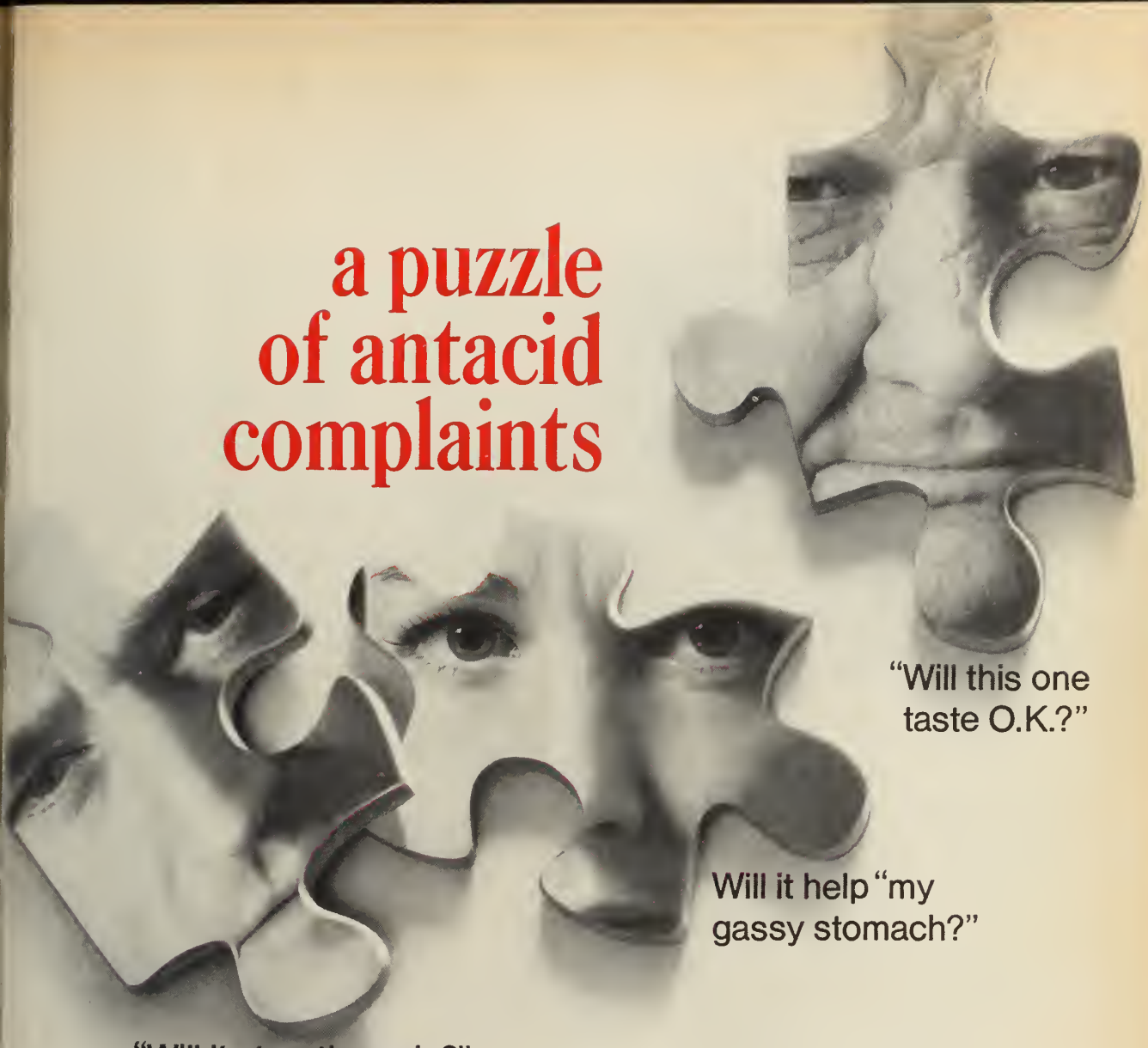
One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Amba suppresses appetite and helps offset emo tional reactions to dieting. **Contraindica tions:** Hypersensitivity to barbiturates o sympathomimetics; patients with advance renal or hepatic disease. **Precautions:** Administer with cau tion in the presence of cardiovascular disease or hypertension **Side Effects:** Nervousness or excitement occasionally noted but usually infrequent at recommended dosages. Slight drows iness has been reported rarely. See package insert for furthe details.

A. H. ROBINS COMPANY, RICHMOND, VA. 23220 A·H·ROBINS

a puzzle of antacid complaints



Mylanta®

aluminum and magnesium hydroxide *plus* simethicone

a solution to peptic ulcer distress

Effective neutralization—
with the two most widely prescribed antacids: aluminum and magnesium hydroxides.

Concomitant relief of G.I. gas distress—
with the proven[1] defoaming action of simethicone.

Prolonged acceptance confirmed—
in 87.5% of 104 patients after a total of 20,459 documented days of therapy.[2]

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. Dosage: One or two tablets (well chewed or allowed to dissolve in the mouth) or one or two teaspoonfuls to be taken between meals and at bedtime.

References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

Stuart
Division/Pasadena, Calif.
ATLAS CHEMICAL INDUSTRIES, INC.

When the agitated geriatric disrupts the home...

His daughter can't please him. There is "just no living with him."

His disturbances at the table make every meal a nightmare.

His teen-age granddaughter won't invite friends home because of his outbursts.

His slovenly room and habits create more tension.



In moderate to severe anxiety...

- Mellaril helps control the most frequent symptoms: marked tension, agitation, apprehension, restlessness, hypermotility
- Mellaril often alleviates anxiety-induced somatic complaints
- Mellaril frequently helps strengthen emotional resources
- Mellaril helps the patient maintain realistic contact with environment, closer harmony with family

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

for moderate to severe anxiety

Mellaril®

(thioridazine)

25 mg. t.i.d.

SANDOZ

Before prescribing, see package insert for full product information.

68-114

Alabama Department of Public Health

Role Of Home Health Agency In Patient Care

Anne M. Smith, R. N., M. S.

What do we mean by rehabilitation and why rehabilitate? Mary Switzer, the administrator of the new Social and Rehabilitation Service of Health, Education, and Welfare, defines rehabilitation as "a bridge between uselessness and usefulness, between hopelessness and hopefulness, between despair and happiness." It involves not merely the physical body but also the mind, the emotions, the spirits.

Just as rehabilitation encompasses the total person so must responsibility for this encompass many groups of professionals: physicians, nurses, vocational counsellors, speech and physical therapists, social workers, clergymen and others.

Of all of these, however, the nurse occupies the key position because it is she who serves the p a t i e n t continuously. Rehabilitation nursing begins with the first nurse who has contact with the patient and continues until the patient is restored to his maximum functional ability in society.

"Rehabilitation has been defined by experts as one of the major health problems of this century. Yet, until recent years, the largest portion of dollars and energy were being applied to the care of the neglected disabled, and the word 'rehabilitation' was only remotely understood in its application to the practice of nursing." Today we are concerned with developing better methods to care for the newly disabled, to avoid costly progressive limitations of body and mind, and to mobilize our nursing resources toward this end.

Let us look at some of the rehabilitation concepts which are accepted by nurses:

1. That nurses endorse and accept the life-giving concept of rehabilitation, (i.e.) there are very few helpless or entirely hopeless patients.

2. That the practice of nursing in rehabilitation is based on a firm, scientific foundation which has grown out of experience and research.

3. That all levels of nursing personnel must be taught the principles and techniques of rehabilitation within the level of their performance.

4. That rehabilitation techniques and services need to be thought of in the context of the patient's own setting, however limited.

5. That the earlier rehabilitation starts the greater the chance for success.

6. That rehabilitation means restoration of the person to his total environment so that he achieves not necessarily independent living but satisfactory living. In other words, he not only receives help, but sees himself as being useful to others. This is the more

Mrs. Smith is Director, Bureau of Public Health Nursing, Alabama Department of Public Health.

spiritual incentive which may well be the most powerful motivating element.

The philosophy of rehabilitation amounts to a new kind of orientation. Emphasis is not so much on doing things for the patient as in teaching him to do things for himself.

Now, how do these concepts and medicare planning relate to public health nursing?

Public Health Nursing in Alabama began some 50 years ago. The early programs were concerned with the prevention and control of communicable diseases, the reduction of infant and maternal death rates, the promotion of health through community and school health programs. We have seen vast changes in the health picture of our state, resulting in people living much longer but therefore being subject to more chronic illnesses and disabling conditions. Therefore, the emphasis of public health nursing begins to change and expand.

We have long coordinated our services with those of Crippled Children's Service and Vocational Rehabilitation in helping to restore the physically handicapped. In 1957 we began a follow-up program for the mentally ill. Then in 1962 we initiated a home care of the sick program for the chronically ill. Due to limited funds, this service was restricted to a few counties on a demonstration basis. Repeatedly this service proved its worth.

With hospitals crowded and beds needed for the more acutely ill, patients often had to be sent home without plans for further nursing care. Time and again patients who have been restored to partial self sufficiency have developed loss of muscle function and other complications because of lack of home care.

As I have indicated, changes in patient care were taking place before the advent of Medicare, but Medicare has certainly accelerated the pace. Changes are taking place rapidly.

First of all, patients who could not get to the hospital at all are now being admitted. Therefore, there is an opportunity for diagnostic tests and for the beginning of restorative nursing measures earlier in illnesses. That we can plan for real continuity of patient care is a concept within itself whereby care begins with the first contact with the patient and continues until he reaches his maximum health. The concept is that no matter how many different people or facilities are concerned with his care, communication is such that the patient progresses uninterruptedly through a continuing plan of care.

What are the implications here? First, that there must be facilities and personnel prepared to give quality patient care at all stages of his illness. Under Medicare, hospitals, extended care facilities, and home health agencies have been certified as providers of service. This is the framework in which we are now working. It is necessary that there is progression from one service to the next according to patient needs and that there is at all times free communication between all agencies concerned.

In Medicare planning we see a closer coordination between the hospitals and nursing homes and the public health agencies. For in this continuum of care the public health nurse has a vital role and should, whenever possible, be oriented to the patient's needs before he leaves the hospital or the nursing home. She has a major responsibility for keeping both patient and family interested in order that self care and restorative procedures may be continued in the patient's own environment.

She may need to explore in advance the physical facilities of the home and to learn the attitude of the family and their ability to carry out instructions. She may have to help them improvise equipment. And with the teaching of more practical procedures, she will have to convey principles of interdependency so that families know when and when not to do for patients so that they do not impede his return to satisfactory living. One of her most important tasks is to guide the family in helping the disabled person to gain a feeling of status, of belonging, as being a contributing member of society.

In summary there are these implications for public health nursing:

Increasing participation in the giving of home care services.

Closer coordination of public health services with those of hospital and nursing homes so that there is truly progressive patient care.

More planning in the area of rehabilitation concepts for all nursing personnel.

Increased utilization of the team approach in patient care so that there is more appropriate use of skilled nursing time.

These are exciting times in which to live and the public health nurse has a unique and fulfilling role to play. She needs professional and technical skills, an ability to communicate at all levels, to assess and make nursing judgements, and to have the understanding personality to which the disabled can relate.

In all her nursing activities the public health nurse receives and must have direction and support from the medical profession.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

February 1968

Examination of Intestinal Parasites	2,300
Examination of Malaria	0
Examination for Salmonella & Shigella (blood-feces-urine-food)	300
Examination for tubercle bacilli	4,692
Examination for gonococci	2,162
Serological tests for syphilis	29,592
FTA	76
Darkfield	0
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	27
Staphylococcus (cultures for isolation and confirmation)	243
Examinations for diphtheria (cultures for isolation and confirmation)	32
Streptococci examinations	2,854
Mycology	19
Agglutinations	7
Vincent's infection	6
Complement fixation tests	199
Tests for Phenylketonuria (PKU)	6,595
Cytology	1,662
Water examinations	2,884
Milk and Dairy products examinations	5,504
Sea food examinations	270
Examination for negri bodies (smears & animal inoculations)	322
Virology	1
Rh Factor Bloods	718
Miscellaneous	756
Total	61,221

(Next Page)



THE BRADLEY CENTER

An all new homelike psychiatric residence located on a lovely five-acre tract inside the city, providing a comprehensive range of services, including inpatient (28 beds), day care, and outpatient treatment. The therapeutic setting is an open community one with no provisions for locked wards. Each patient participates in an intensive treatment program consisting of individual pyschotherapy, group psychotherapy, topical small group discussions, occupational therapy and recreational therapy, and other group activities in the Center as well as in the community, depending on individual interests and needs. Drugs are used when appropriate.

Any individual may be admitted who, in the opinion of the staff, might benefit from the services provided in this particular setting. This can best be determined by a preadmission consultation with the person and a responsible member of his family.

Brochures and rate schedules are available on request.

Leonard T. Maholick, M. D.
Medical Director

Maj. Gen.(Ret.) Howard Snyder
Administrator

THE BRADLEY CENTER, INC.
2000 Sixteenth Avenue
Columbus, Georgia 31901
Area Code 404 - 324-4882

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

March 1968

Examination of Intestinal Parasites	2,303
Examination of Malaria	2
Examination for Salmonella & Shigella (Blood-feces-urine-food)	217
Examination for tubercle bacilli	4,887
Examination for gonococci	2,443
Serological tests for Syphilis	30,555
FTA	116
Check Specimens	20
Darkfield	0
RPR	200
Brucella	1
General Bacteriology (cultures for isolation and confirmation)	27
Staphylococcus (cultures for isolation and confirmation)	146
Examinations for diphtheria (cultures for isolation and confirmation)	33
Streptococci examinations	2,787
Mycology	37
Agglutinations	20
Vincent's infection	9
Complement fixation tests	151
Tests for Phenylketonuria (PKU)	5,993
Cytology	1,970
Water examinations	3,166
Milk & Dairy products examinations	5,676
Sea food examinations	230
Examinations for negri bodies (smears & animal inoculations)	296
Virology	39
Rh Factor Bloods	694
Miscellaneous	1,015
Total	63,033

BUREAU OF PREVENTABLE DISEASES

W. H. Y. Smith, M. D., Director

Current Morbidity Statistics

1968

	Feb.	Mar.	*E. E. Mar.
Tuberculosis	140	156	113
Syphilis	66	105	132
Gonorrhea	289	324	326
Chancroid	2	0	2
Typhoid fever	0	0	0
Undulant fever	0	0	0
Amebic dysentery	5	4	4
Scarlet fever & strep. throat	381	721	271
Diphtheria	0	0	1
Whooping cough	18	14	7
Meningitis	10	17	7
Tularemia	0	0	0
Tetanus	0	0	1
Poliomyelitis	0	0	0
Encephalitis	0	0	0
Smallpox	0	0	0
Measles	11	45	420
Chickenpox	124	105	170
Mumps	145	96	58
Infectious hepatitis	28	39	44
Typhus fever	0	0	0
Malaria	0	0	0
Cancer	1,214	712	599
Pellagra	0	0	0
Rheumatic fever	7	10	17
Rheumatic heart	22	23	29
Influenza	2,309	384	1,638
Pneumonia	500	348	340
Rabies—Human cases	0	0	0
Pos. animal heads	4	4	0

As reported by physicians and including deaths not reported as cases.

*E. E.—The estimated expectancy represents the median incidence of the past nine years.

BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

1967

Ralph W. Roberts, M. S., Director

Live Births / Deaths / Causes of Death	Number Recorded			Rates*		
	Prov. 1967	Final 1966	1961-1965 Average	Prov. 1967	Final 1966	Average 1961-1965
Live Births	63,829	66,012	76,012	17.9	18.7	22.4
Deaths	31,568	32,777	31,176	8.9	9.3	9.2
Fetal Deaths	1,297	1,347	1,571	19.9	20.0	20.2
Infant Deaths—						
under one month	1,147	1,283	1,574	18.0	19.4	20.7
under one year	1,710	1,928	2,371	26.8	29.2	31.1
Maternal Deaths	40	39	52	6.1	5.8	6.7
Causes of Death						
Tuberculosis, 001-019	234	254	265	6.6	7.2	7.8
Syphilis, 020-029	26	30	45	0.7	0.9	1.3
Dysentery, 045-048	1	7	9	**	0.2	0.3
Diphtheria, 055	5	1	3	0.1	**	0.1
Whooping cough, 056	1		5	**		0.2
Meningococcal infections, 057	21	16	18	0.6	0.5	0.5
Poliomyelitis, 080, 081	3+	2	4	0.1+	0.1	0.1
Measles, 085	6	3	10	0.2	0.1	0.3
Malignant neoplasms, 140-205	4,588	4,418	4,087	128.8	125.5	120.3
Diabetes mellitus, 260	595	592	472	16.7	16.8	13.9
Pellagra, 281	2	1	4	0.1	**	0.1
Vascular lesions of central nervous system, 330-334	4,192	4,507	4,358	117.7	128.0	128.2
Rheumatic fever, 400-402	13	12	21	0.4	0.3	0.6
Diseases of the heart, 410-443	10,593	11,084	10,368	297.3	314.8	304.2
Hypertension with heart disease, 440-443	1,226	1,441	1,564	34.4	41.0	45.2
Diseases of the arteries, 450-456	822	791	732	23.1	22.5	21.5
Influenza, 480-483	40	69	130	1.1	2.0	3.9
Pneumonia, all forms, 490-493	790	911	939	22.2	25.9	27.6
Bronchitis, 500-502	77	92	62	2.2	2.6	1.8
Appendicitis, 550-553	22	47	31	0.6	1.3	0.9
Intestinal obstruction and hernia, 560, 561, 570	134	146	157	3.8	4.1	4.6
Gastro-enteritis and colitis, under 2, 571.0, 764	51	88	118	1.4	2.5	3.5
Cirrhosis of liver, 581	241	235	204	6.8	6.7	6.0
Diseases of pregnancy and childbirth, 640-689	40	39	52	6.1	5.8	6.7
Congenital malformations, 750-759	333	345	386	5.2	5.2	5.1
Immaturity at birth, 774-776	300	421	494	6.4	6.4	6.4
Accidents, total, 800-962	2,398	2,418	2,188	67.3	68.7	64.3
Motor vehicle accidents, 810-835, 960	1,226	1,209	1,060	34.4	34.3	31.1
All other defined causes	4,391	4,617	4,526	123.2	131.1	133.2
Ill-defined and unknown causes, 780-793, 795	1,649	1,631	1,488	46.3	46.3	43.7

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population

**Less than rate of 0.05

When it's more than a bad cold



your patient can feel better while she's getting better

Achrocidin®

Tetracycline HCl—Antihistamine—Analgesic Compound

Each tablet contains: ACHROMYCIN® Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Caffeine 30 mg.; Salicylamide 150 mg.; Chlorothen citrate 25 mg.

In bacterial/allergic u.r.i., ACHROCIDIN brings the treatment together in a single prescription —prompt relief of headache and congestion together with effective control of the tetracycline-sensitive organisms frequently responsible for complications leading to prolonged disability in the susceptible patient.

For children and elderly patients you may prefer caffeine-free ACHROCIDIN Syrup. Each 5 cc contains: ACHROMYCIN (Tetracycline) equivalent to Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Salicylamide 150 mg.; Ascorbic Acid (C) 25 mg.; Pyrilamine Maleate 15 mg.

Average adult dosage: 2 tablets four times daily, given at least one hour before, or two hours after meals.
Contraindications: History of hypersensitivity to any component.
Warning: If renal impairment exists, even usual doses may lead to liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. Hypersensitive individuals may develop a photodynamic reaction to natural or artificial sunlight during use. Individuals with a history of photosensitivity reactions should avoid direct exposure while under treatment, which should be discontinued at first evidence of skin discomfort.
Precautions: Some individuals may experience drowsiness, anorexia, and slight gastric distress. If excessive drowsiness occurs, it may be necessary to increase the interval between doses. Persons on full dosage should not operate any vehicle. Use may result in overgrowth of nonsusceptible organisms. If infections appear during therapy, appropriate measures should be taken. Infections caused by beta-hemolytic streptococci should be treated for at least 10 full days to help prevent rheumatic fever or acute glomerulonephritis. Use of tetracycline during tooth development may cause discoloration of teeth.
Adverse Reactions: Gastrointestinal—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes (a case of exfoliative dermatitis has been reported); photosensitivity; onycholysis and discoloration of nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. In young infants, bulging fontanels following full therapeutic dosage has been reported. This has disappeared rapidly when drug was discontinued. Teeth—dental staining (yellow-brown) in children of mothers given tetracycline during the latter half of pregnancy and in children given the drug during the neonatal period, infancy, and early childhood. Enamel hypoplasia has been seen in a few children. Blood—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. Liver—cholestasis (rare), usually at high dosage. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

Lederle

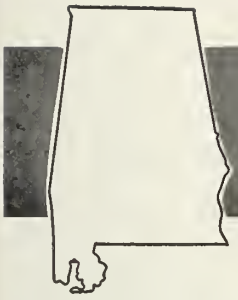
327-8

Today you work harder
than ever to maintain
American medicine at
the high level that assures
everyone a better . . .
and longer . . . life.

Blue Shield is more vital
now than ever before.
Your support of Blue
Shield helps strengthen
the case for voluntary
methods.

Blue Cross-Blue Shield
of Alabama





around the state

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Delegates: W. G. Butler, Jr., M. D., and A. M. Burford, Jr., M. D.

Alternate Delegates: John Rice, M. D., and S. S. Roberts, Jr., M. D.

The Society meets regularly on the second Monday of each month.

Lee

President, Byron S. Knapp, M. D., Auburn.

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Delegates: D. T. Sims, M. D., Auburn, and J. C. Meadows, Jr., M. D., Opelika.

Alternate Delegates: A. Z. Carter, Jr., M. D., Auburn, and James E. Walker, Jr., M. D., Opelika.

The Society meets on the second Thursday each three months.

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Secretary-Treasurer, R. L. Tourney, M. D., Athens.

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Alternate Delegates: D. C. Holt, M. D., and R. L. Tourney, M. D., Athens.

The Society meets regularly on the third Tuesday of each month.

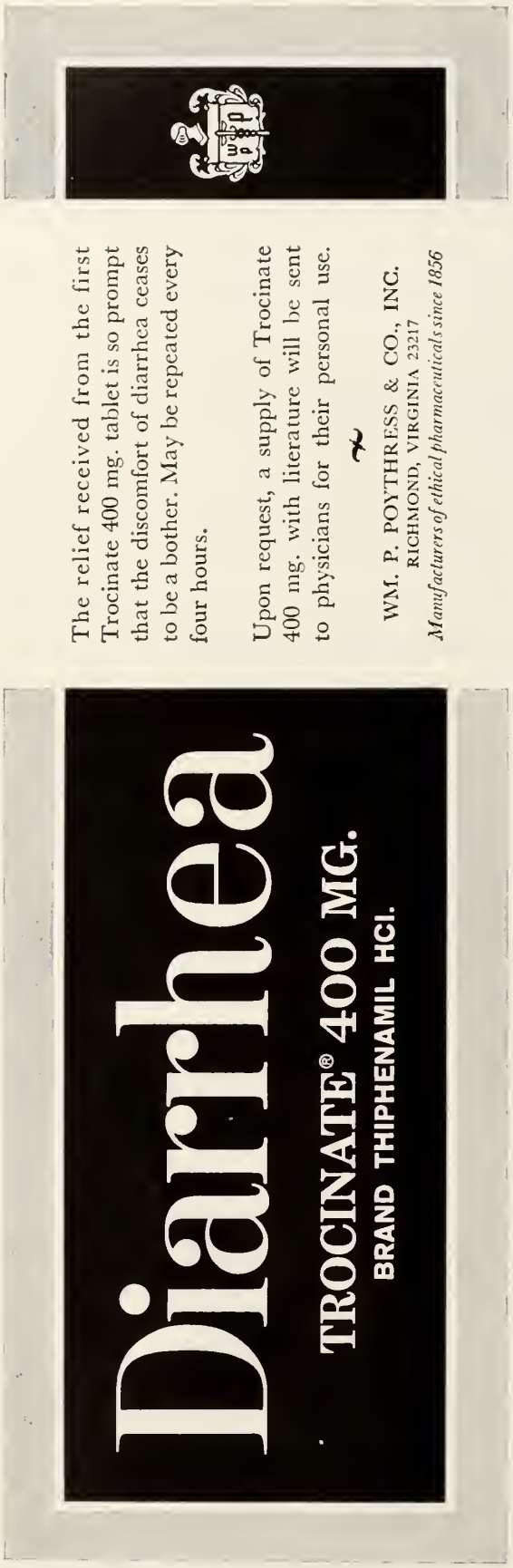
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President, W. L. Staggers, M. D., Benton.

Vice-President, H. Howard Meadows, M. D., Lowndesboro.

Secretary-Treasurer, R. P. Griffin, M. D., Fort Deposit.

Board of Censors: W. L. Staggers, M. D.,



Chairman; R. P. Griffin, M. D.; and H. Howard Meadows, M. D.

Delegates: R. P. Griffin, M. D., and H. Howard Meadows, M. D.

Alternate Delegate: W. L. Staggers, M. D.

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Vice-President, James E. Gaba, M. D., Winfield.

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Board of Censors: James E. Gaba, M. D., Chairman, Winfield; Ernest A. West, M. D., Hackleburg; John R. Hanford, M. D., Hamilton; William F. Gaba, M. D., Winfield; R. C. Christopher, Jr., M. D., Guin.

Delegates: William F. Gaba, M. D., Winfield; and James Otis Brooks, M. D., Hamilton.

Alternate Delegates: Aubrey L. Sewell, M. D., Winfield, and Francis M. Crenshaw, M. D., Hamilton.

The Society meets regularly on the second Thursday of each month.

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Delegates: R. R. Roper, M. D., and C. F. Veazey, M. D., Guntersville.

Alternate Delegates: Ellis F. Porch, M. D., Arab, and M. T. Hunt, M. D., Boaz.

The Society meets regularly on the first Tuesday of each month.

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Secretary, William P. Coats, M. D., Mobile.

Treasurer, Samuel Eichold, M. D., Mobile.

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Delegates: Van D. Chunn, Jr., M. D.; G. William Wiles, M. D.; Julius Pennington, M. D.; Raymond E. Abell, Jr., M. D.; Walter L. Hogan, M. D.; Philip P. Gilchrest, M. D.; J. Richard Moore, M. D.; Herbert P. Kinsey, M. D.; William Y. McDaniel, M. D.; John S. Taylor, M. D.

Alternate Delegates: William T. Wright, M. D.; John M. McGehee, M. D.; Irving A. Koffler, M. D.; Ivey Williamson, M. D.; Howard E. Leonard, M. D.; Benjamin B. Kimbrough, M. D.; Neal S. Flowers, M. D.; Max V. McLaughlin, M. D.; Charles J. Hollis, M. D.; Jack O. Yeager, M. D.

The Society meets regularly on the third Tuesday of each month September through April.

Monroe

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Secretary-Treasurer, Jack M. Whetstone, M. D., Monroeville.

Board of Censors: R. O. Smith, Sr., M. D., Chairman; Woodrow Eddins, M. D.; Francis E. Nicholas, M. D.; W. H. Curtright, M. D., and B. L. Hanks, M. D.

Delegates: B. L. Hanks, M. D.; and Jack Whetstone, M. D.

Alternate Delegates: Francis E. Nicholas, M. D., and W. H. Curtright, M. D.

(Continued on Page 1292)

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856



Indications: Tofrānil is recommended for the treatment of depressive states of diverse psychopathology.
Contraindications: The concomitant use of Tofrānil and monoamine oxidase inhibiting (M.A.O.I.) compounds is contraindicated. Hyperpyretic crises or severe convulsive seizures may occur. Potentiation of adverse effects can be serious or even fatal. An interval of at least 7 days after M.A.O.I. therapy has been discontinued should be allowed before Tofrānil may be substituted. Initial Tofrānil dosage should be low, increases should be gradual, and the patient's progress should be carefully observed.
Warning: Clinical reports have suggested that there may be a risk of teratogenesis associated with the use of this compound during the first trimester of pregnancy. Unless, in the opinion of the prescribing physician, the potential benefits outweigh the possible risks, Tofrānil should not be used during the first trimester of pregnancy.
Cardiovascular complications, including myocardial infarction and arrhythmias, have occasionally occurred in susceptible individuals. Patients with cardiovascular disease should be given the drug only under careful observation and in low dosage.
Precautions: Since suicide is always a possibility in severely depressed patients and one which may persist until significant remission occurs, such patients should be carefully supervised during early treatment with Tofrānil. Some severely depressed patients may also require hospitalization and/or concomitant electroconvulsive therapy.
Because of its anticholinergic effect, caution should be observed in prescribing Tofrānil for patients with increased intraocular pressure.
In rare instances, transient cardia
arrhythmias have occurred in hyp
thyroid patients and in patients re
ceiving thyroid medication when
Tofrānil was added to the regime
Imipramine may block the pharm
cologic activity of guanethidine a
other related adrenergic neuron-
blocking agents.
The drug is not recommended at
present time in patients under 12
of age.
Adverse Reactions: Dryness of th
mouth, tachycardia, constipation,
turbances of accommodation, sw
ing, dizziness, weight gain, urinar
frequency or retention, nausea an
vomiting, peripheral neuritis, mild
parkinson-like syndrome, tremors
rare cases of falling in elderly pa-
tients, confusional states (with su
symptoms as hallucinations and d
orientation), activation of psychos
schizophrenics and agitation (inc

When a milestone in life is marred by depression...



Often in the mind of the lonely, widowed, depression-prone individual, she's not gaining a daughter...she's losing a son. The occasion may be marred by depression with such symptoms as feelings of sadness, incapacity, helplessness and hopelessness.

Tofrānil often relieves symptoms of depression.

As maintenance therapy during the active phase of depression, it may help prevent relapse.

The use of Tofrānil in patients receiving M.A.O.I.'s is contraindicated.

In patients with cardiovascular disease, hyperthyroidism or increased intraocular pressure; or in those receiving anticholinergics (including antiparkinsonism agents), thyroid medication, or antihypertensive adrenergic neuron-blocking agents; and in those in their first trimester of pregnancy, the special precautions listed in the prescribing information should be carefully observed.

Toxic reactions severe enough to require discontinuation of Tofrānil are uncommon. However, for complete details, please refer to the full prescribing information.

Tofrānil® imipramine hydrochloride Geigy

lpomanic and manic episodes)
c may require dosage reduction
r addition of a tranquilizer or
rary discontinuation of the drug,
tiform seizures, orthostatic
ension and substantial blood
ure fall in hypertensive patients,
ra, transient jaundice, bone mar-
epression including agranulocy-
sensitization and skin rash
ling photosensitization, eosino-
and mild withdrawal symptoms
dden discontinuation after pro-
d treatment with high doses.
sional hormonal effects (im-
ce, decreased libido, and estro-
effects) may be observed.
ine-like effects may be more
unced (e.g. paralytic ileus) in
ptible patients and in those
anticholinergic agents (includ-
tiparkinsonism drugs).
tient Adult Dosage: Initially,
. daily, increased, if necessary, to 150 or 200 mg. Maintenance dosage may be lower, 50 to 150 mg. daily, if possible.
Geriatric and Adolescent Dosage: Initially, 30 or 40 mg. daily, which may be increased according to response and tolerance. It is usually unnecessary to exceed 100 mg. daily.
A lag in therapeutic response, lasting from a few days to a few weeks, should be expected. When dosage recommendations are already being followed, increasing the dosage does not normally shorten this latency period and may increase the incidence of adverse reactions.
Availability: Tofrānil: Round tablets of 25 and 50 mg.; triangular tablets of 10 mg. for geriatric and adolescent use; and ampuls, each containing 25 mg. in 2 cc. for I.M. administration.
(B)46-850-C
For complete details, please refer to the full Prescribing Information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502

TO-5522R

(Continued from Page 1289)

Montgomery

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Alternate Delegate: Otto L. Burton, M. D.

Vital Statistics

NEW MEMBERS

Calhoun County

Edmonds, Gerald William, 815 Fairway Dr., Anniston, Ala. 36201.

Elliott, Robert Lange, Jr., 920 Quintard S., Anniston, Ala. 36201.

Smith, Samuel Rushing, 429 E. 9th St., Anniston, Ala. 36201.

Stewart, James Patrick, 721 E. 10th St., Anniston, Ala. 36201.

Coffee County

Paulk, James Flood, Medical Center, Enterprise, Ala. 36330.

Dallas County

Cox, Clyde Bolyn, Jr., Doctors' Park, Selma, Ala. 36701.

Jefferson County

Collins, Harry Goodgame, P. O. Box 734, Birmingham, Ala. 35201.

Diethelm, Arnold Gillespie, 1919-7th Ave. S., Birmingham, Ala. 35233.

Gillis, Samuel Peters, 1919-7th Ave. S., Birmingham, Ala. 35233.

Goral, Cemal, Lloyd Noland Hospital, Fairfield, Ala. 35064.

Harris, Samuel Elliott, 505½ N. 17th St., Birmingham, Ala. 35203.

Hazelrig, Cooper Green, 700 S. 19th St., Birmingham, Ala. 35233.

Holt, Ira Hawkins, Lloyd Noland Hospital, Fairfield, Ala. 35064.

Kim, Jong-In, 1919-17th Ave. S., Birmingham, Ala. 35233.

Levine, Myron Albert, 1919-7th Ave. S., Birmingham, Ala. 35233.

Longino, Luther Alvan, 1601 S. 6th Ave., Birmingham, Ala. 35205.

Nunis, Jimmy Blansett, 1919-7th Ave. S., Birmingham, Ala. 35233.

Ott, Willard Rodney, 7928 2nd Ave. S., Birmingham, Ala. 35206.

Peacock, Peter Norman Bligh, 1919-7th Ave. S., Birmingham, Ala. 35233.

Ricketts, George Leftwich, Jr., 1919-7th Ave. S., Birmingham, Ala. 35233.

Salter, Merle Meyers, 1919-7th Ave. S., Birmingham, Ala. 35233.

Sox, Joe Howle, Box 400, Pinson, Ala. 35126.

Toner, Stephen John, 1529 25th St., N., Birmingham, Ala. 35234.

Turman, Alfred Eugene, 1919-7th Ave., S., Birmingham, Ala. 35233.

Watson, Horace Eugene, 816 Woodward Bldg., Birmingham, Ala. 35203.

Woodard, John Roger, 1919-7th Ave. S., Birmingham, Ala. 35233.

Madison County

Ditoro, Peter, 224 Drake Ave. S. W., Huntsville, Ala. 35801.

Elwell, Hildreth Burt, Jr., NASA Medical Center, Huntsville, Ala. 35801.

(Continued on Page 1294)

When it's time for Thorazine® brand of chlorpromazine



...can you depend on less?

For profound calming effect in moderate to severe mental and emotional disturbances of everyday practice.

Before prescribing, see complete information, including adverse effects reported with phenothiazines and symptoms and treatment of overdosage, in SK&F literature or *PDR*. The following is a brief precautionary statement.

Contraindications: Comatose states or the presence of large amounts of C.N.S. depressants.

Precautions: Potentiation of C.N.S. depressants may occur (reduce dosage of such agents when used concomitantly). Use with caution in patients with chronic respiratory disorders. Antiemetic effect may mask overdosage of toxic drugs or obscure other conditions. Administer in pregnancy only when necessary. Because of possible drowsiness use cautiously and warn patients who operate vehicles or machinery.

Adverse Reactions: Drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; miosis; mild fever; weight gain; hypotensive effects, sometimes severe with I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosages (in rare instances, may persist); lactation and moderate breast engorgement (in females on high dosages); and less frequently, cholestatic jaundice (use cautiously in patients with liver disease). Adverse reactions occurring rarely, include: mydriasis; agranulocytosis; skin pigmentation; epithelial keratopathy; lenticular and corneal deposits (after prolonged substantial doses).

Available: Tablets, 10 mg., 25 mg., 50 mg., 100 mg. and 200 mg.; Spansule® capsules, 30 mg., 75 mg., 150 mg., 200 mg. and 300 mg.; Injection, 25 mg./cc.; Syrup, 10 mg./5 cc.; Suppositories, 25 mg. and 100 mg.

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Smith Kline & French Laboratories, Philadelphia SK&F

(Continued from Page 1292)

Litkenhous, Edward Earl, Jr., Huntsville, Ala. 35801.

Spraul, James Howard, NASA Medical Center, Huntsville, Ala. 35801.

Montgomery County

Woodfin, Mose Clarke, Jr., 750 Washington Ave., Montgomery, Ala. 36104.

Tuscaloosa County

Bahar, David, 1101 6th Ave. E., Tuscaloosa, Ala. 35401.

Partlow, Rufus Cornelius, Jr., 6 Druid Medical Center, Tuscaloosa, Ala. 35401.

ADD—NONMEMBERS

Calhoun County

Strange, Charles Edwin, 103 Church St., Jacksonville, Ala. 36265.

Tuscaloosa County

Taylor, William Arnold, 922 5th Ave. E., Tuscaloosa, Ala. 35401.

MEMBERS DECEASED

Houston County

Crawford, Robert Dixon, Jr., P. O. Box 741, Dothan, Ala. 36301—deceased February 17, 1968.

Jefferson County

Barron, James Mathew, 1308 42nd St., Ensley, Ala. 35208—deceased March 8, 1968.

Randolph County

Manley, John Radney, Roanoke, Ala. 36274—deceased December 8, 1967.

NONMEMBERS DECEASED

Tuscaloosa County

Hausman, Christopher Pfeiffer, Coaling, Ala. 35449—deceased.

MEMBERS REMOVED

Clay County

Sanders, William McDonald, 310-8th Ave. S. W., Rochester, Minn. 55901—moved from state.

Colbert County

McCormick, Lonnie George, 3431 Edgewood Rd., Columbus, Ga.—moved from state.

Elmore County

Morgan, John Doyle, 5918 Whitestone Rd., Jackson, Miss. 39206—moved from state.

Jefferson County

Jones, James Kenda, 33 S. E. 3rd St., Boca Raton, Fla.—moved from state.

Purvis, John Taylor, 1717 Bellevue Ave., Richmond, Va. 23277—moved from state.

Tucker, Ernest Shreeves, III, Mercy Manor Apts, 4123 5th Ave., San Diego, Calif.—moved from state.

Randolph County

Sasser, Ramon Carroll, 612 Harpeth Bend Dr., Nashville, Tenn. 37215—moved from state.

Short, William Buford, Jr., 3022 Puanani St., Likue, Kauai, Hawaii 96766—moved from state.

Tallapoosa County

Meigs, Lamar Carroll, AP2 Colonial Apt., Beach St., Ashland, Ky. 41107—moved from state.

TRANSFERS

Dallas County

McCall, Doy Leale, Jr., 311 Dallas Ave., Selma, Ala. 36701 (Transfer from member of Montgomery County Medical Society to Dallas County Medical Society.)

Jefferson County

Finney, James Owen, 1919-7th Ave. S., Birmingham, Ala. 35233. (Transfer from member of Etowah County Medical Society to Jefferson County Medical Society.)

CHANGE OF ADDRESS—NONMEMBER

Tuscaloosa County

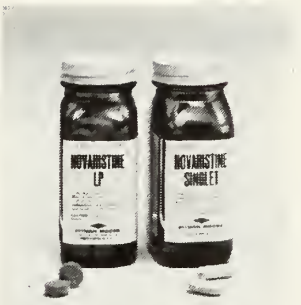
Johnson, Irene W., present Tuscaloosa, Ala. 35401, to Guntersville, Ala. 35976.

(Continued on Page 1296)

Some U.R.I. patients are more miserable than others.

That's why we make Novahistine® tablets in two different formulations.

And let you control the dosage.



Each Novahistine LP tablet contains phenylephrine hydrochloride, 25 mg.; and chlorpheniramine maleate, 4 mg.
Each Novahistine Singlet tablet contains phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.; and acetaminophen, 500 mg.

With Novahistine LP tablets and Novahistine Singlet™ tablets you have the range and flexibility of decongestant dosage that lets you prescribe for the needs of the individual patient.
Novahistine LP tablets are most useful for relief of nasal congestion in patients without pain or fever. Novahistine Singlet tablets, which provide analgesic-antipyretic effect, as well as decongestant action, are indicated for upper respiratory infections accompanied by pain, aches and fever.
Whether you prescribe Novahistine LP or Novahistine Singlet, a total daily dose of 3 or 4 tablets will usually provide effective, continuous relief.
Use cautiously in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

Dow PITMAN-MOORE DIVISION OF THE DOW CHEMICAL COMPANY, INDIANAPOLIS



"Nothing else I've tried seems to work, so I decided to give you a crack at it."

(Continued from Page 1294)

CHANGE OF ADDRESS

Calhoun County

McAnnally, Billy D., present Anniston, Ala. 36201, to 324 Lenlock Drive, Anniston, Ala. 36201.

Dallas County

Combs, Robert M., present Selma, Ala. 36701, to Box 1127, Selma, Ala. 36701.

Putzel, Charles L., Jr., present Selma, Ala. 36701, to Box 1127, Selma, Ala. 36701.

Williams, Jonathan Richard, present Selma, Ala. 36701, to Route 5, Box 454-A, Selma, Ala. 36701.

Houston County

Driggers, Roy M., present Dothan, Ala. 36301, to 509 W. Main St., Dothan, Ala. 36301.

Jefferson County

Moore, Ewing J., Jr., present Pinson, Ala. 35126, to Baptist Medical X-ray, 800 Montclair Rd., Birmingham, Ala. 35213.

Spruell, William H., present Birmingham, Ala. 35216, to 1641 Kestwick Dr., Birmingham, Ala. 35216.

Yake, Ronald F., present Birmingham, Ala. 35234, to 2028 Elton Hills Dr., Rochester, Minn. 55901.

Lauderdale County

Alexander, William W., present Moulton, Ala. 35650, to Route 4, Big Nance Creek, Moulton, Ala. 35650.

Madison County

Hyatt, Arthur J., present Huntsville, Ala. 35802, to 1011 Mira Vista Dr., Huntsville, Ala. 35802.

Christopher, Neil Edward, present Memphis, Tenn., 38128, to Rt. No. 2, Sunrise Shores, Guntersville, Ala. 35976.

Morgan County

Hansberry, George W., present Decatur, Ala. 35601, to 1201 Somerville Rd., Decatur, Ala. 35601.

Phillips, Edwin J., present Decatur, Ala. 35601, to 1201 Somerville Rd., Decatur, Ala. 35601.

Whitley, Elton C., Jr., present Decatur, Ala. 35601, to 1201 Somerville Rd., Decatur, Ala. 35601.

Tuscaloosa County

Santina, Henry D., present Tuscaloosa, Ala. 35401, to 902-5th Ave., E., Tuscaloosa, Ala. 35401.

County Society Meetings

Lee County

Dr. Doyle Haynes, associate professor of surgery, Emory University, was the speaker at the Lee County Medical Society meeting on April 4. His subject was the Use of IV Regional Anesthesia.

Nineteen members were present. Dr. Byron Knapp presided.

Walker County

Dr. Thomas A. S. Wilson, Birmingham, spoke at the March meeting of the Walker County Medical Society. Dr. Wilson spoke on "Large Vessel Disease Below the Diaphragm."

The society discussed Yellow Page listing, and health services. Dr. William E. Birdsong presided at the meeting. Nineteen members were present.

(Continued on Page 1300)

Calendar of Annual Meetings

Medical Association of the State of Alabama

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

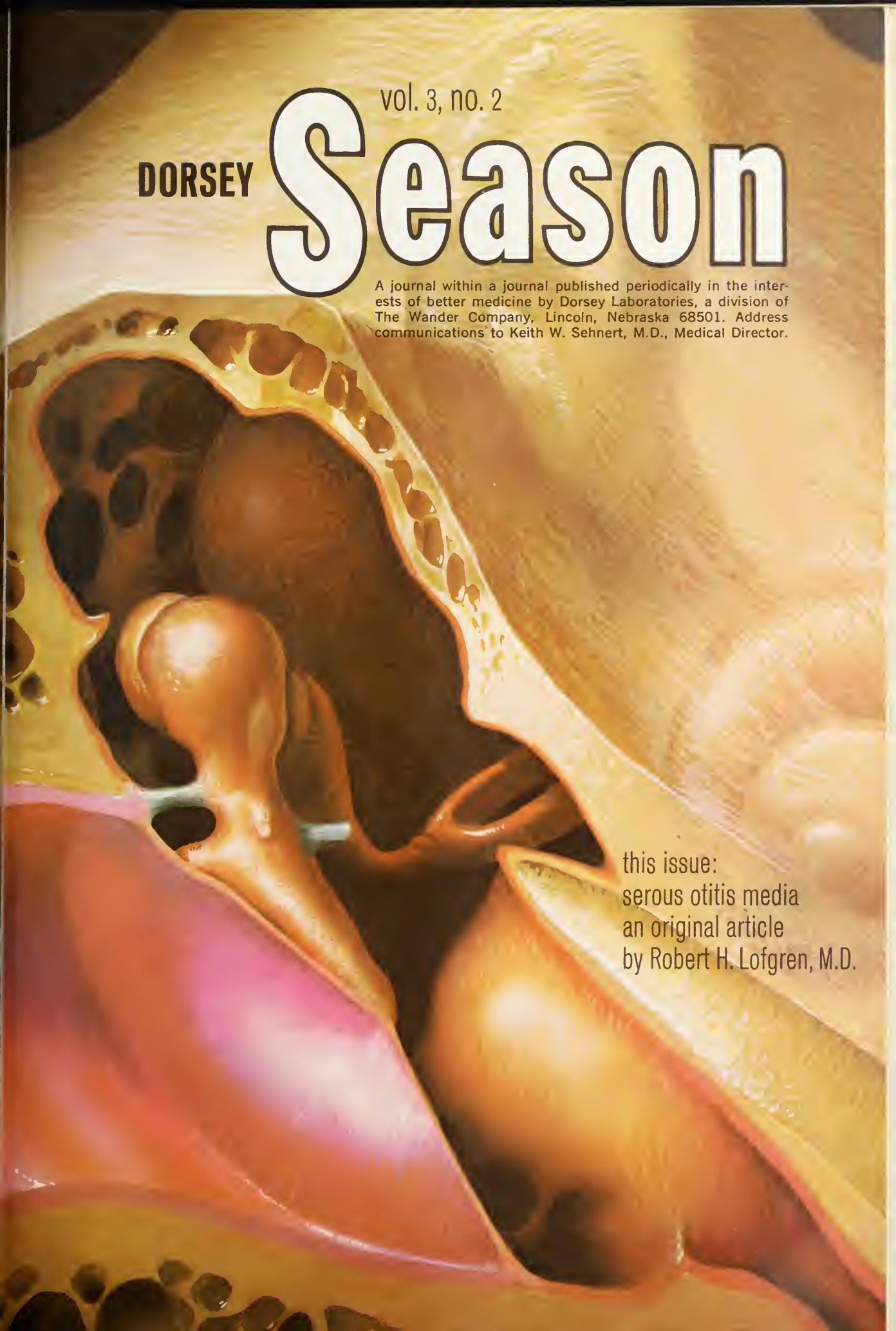
1972, April 20-22, Montgomery

1973, April 18-21, Mobile

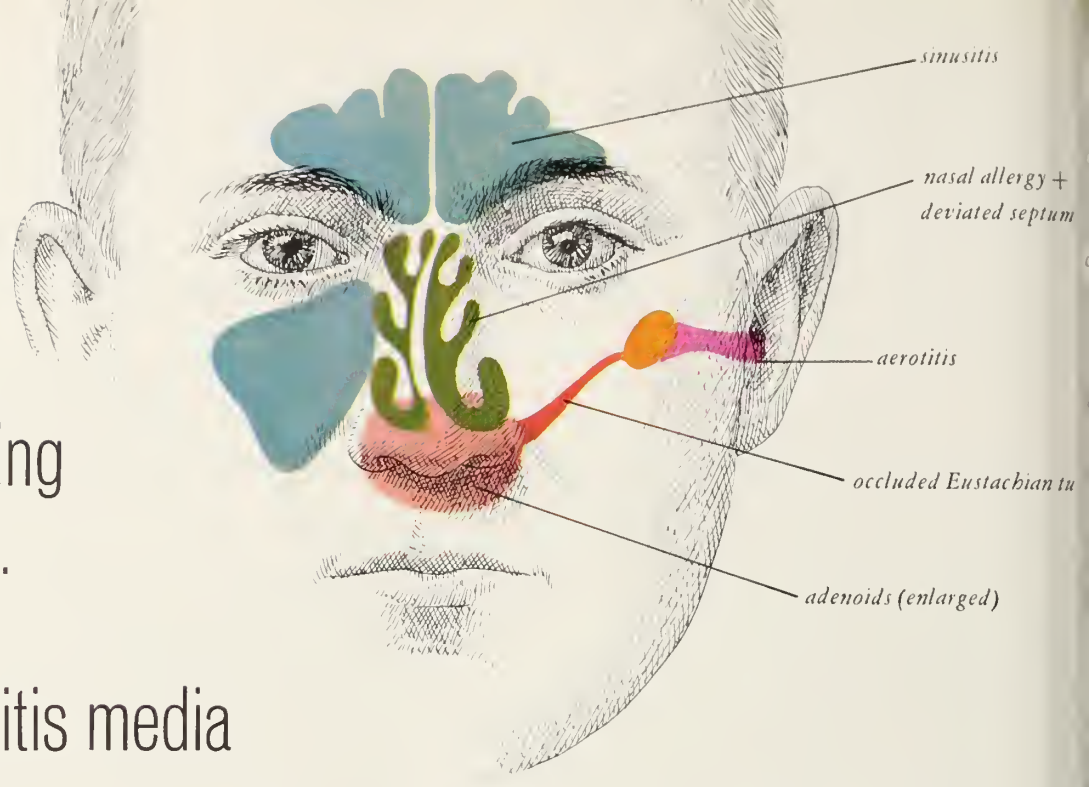
vol. 3, no. 2

DORSEY Season

A journal within a journal published periodically in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska 68501. Address communications to Keith W. Sehnert, M.D., Medical Director.



this issue:
serous otitis media
an original article
by Robert H. Lofgren, M.D.



the complaining earache... key to serous otitis media

Robert H. Lofgren, M.D.
Associate Surgeon, Massachusetts Eye and Ear Infirmary, Boston, Massachusetts

Serous otitis media is probably the most common ear problem in children, especially in the wintertime. Diagnosis is usually easy in adults, but may be quite difficult in children, especially the very young child where one has to depend almost entirely on the physical findings.

The symptoms of serous otitis are a fullness in the ear, a mild hearing loss and mild earache. The earache can best be described as a "complaining earache" instead of a "screaming earache" as found in purulent otitis media. A young child may be irritable and pull at the ear. In milder cases, and as the ear recovers, gurgling and popping noises can be heard in the ear.

On examination one may see a yellow tympanic membrane and if a fluid level is present the diagnosis becomes easy. However, the eardrum may be dull gray, or slightly pink, or even perfectly normal. Pneumomassage using a Siegle otoscope or a closed-head electric otoscope must be done on both ears, otherwise the diagnosis will be frequently missed. Attempted movement of the drum with the pneumatic otoscope produces either a sluggish motion of the drum or no motion at all instead of the easily movable normal drum. The Rinne test is negative and there is a 15-20 decibel conductive hearing loss. The bone conduction may be better than normal and an air-bone gap may exist even with the air conduction within normal limits. Occasionally one finds a false nerve deafness on the audiogram when thick glue-like fluid causes immobility of both the oval and round window. Both conditions return to normal when the fluid is removed, but they make the interpretation of screening audiograms very difficult.

There is no single cause for serous otitis. One factor always present is blockage of the eustachian tube, but this alone is not enough to produce fluid. There must also be an inflammatory reaction. Blockage of the eustachian tube may be caused by many conditions. In children the most common cause is enlarged adenoids. In the summer the next most common cause is allergy. Upper respiratory infections or influenza are common causes in the winter. Nasal allergy, acute and chronic sinusitis, nasal septal deformity and cleft palate can all cause eustachian tube obstruction. Some children may have a congenitally small eustachian tube, but fortunately they usually "grow out of the problem."

The first sign of a nasopharyngeal tumor is often a serous otitis. One must always rule this out in any adult who later in life develops repeated or persisting serous otitis. Causes sometimes overlooked are nasogastric tubes after surgery, simple obesity and cardiorenal disease, which may produce congestion in the mucosal lining of the eustachian tube. In recent years we have been seeing a new cause—acute otitis media, where the patient is adequately treated with antibiotics but where drainage has not been

established either through the eardrum or down the eustachian tube. A sterile exudate is left in the middle ear.

The inflammatory response may be caused by a marked negative pressure as in air otitis from flying, or it may be from a mild bacterial or viral infection in the middle ear. Serous fluid is a good culture medium and will frequently go on to purulent otitis media, especially if the original blockage was caused by an infectious process such as acute rhinitis or adenoiditis. When the infection heals there may be scarring in the middle ear mucosa. Mucous glands develop in this tissue and pour out a thick mucoid material. This ear usually looks normal until a pneumatic otoscope is used. The objectives in treating serous otitis are to remove the obstructing agent and to provide drainage from the middle ear. Often this can be accomplished by decongestants and nose drops. If large obstructing adenoids are present they should be removed. Sinusitis should be treated with oral decongestants or nose drops, plus antibiotics where indicated. Nasopharyngeal tumors should be treated. Allergies should be treated with antihistamines and, where indicated, by desensitization.

If the fluid does not clear with medical treatment within a week or two, a myringotomy should be done. If there is a question of active infection or if the fluid looks purulent, as is seen at the conclusion of acute otitis, cultures are taken. On adults this can be done in the office without anesthesia. It is no more painful than an intravenous needle for a blood test. A good safe topical anesthetic has a tremendous psychological value to the patient. Children under the age of 1 require no anesthesia. Between the ages of 1 and 3 anesthesia is not absolutely essential although a general anesthetic may be used to avoid the child's possible mistrust at follow-up examinations. I usually do the myringotomy at the same time as the adenoidectomy if the adenoids are enlarged. Once drainage has been established with decongestants or by myringotomy, positive pressure inflation of the middle ear is invaluable in forcing out the serous fluid and keeping it from reforming. The patient can do this himself by performing the Valsalva maneuver. This should be done several times a day, by taking a deep breath, holding the nose and blowing hard against the closed lips for a second or two.

In resistant cases where the fluid reforms as soon as the myringotomy heals, small polyethylene tubes are inserted through the myringotomy site. Insertion of the tubes, even in adults, usually requires an anesthetic. Good anesthesia can be obtained by infiltrating the canal wall with a local anesthetic, using a #27 needle. Once inserted the patient has no sensation of the tubes' presence. Be careful to caution the patient or parents not to allow any water to get into the ear canal while a myringotomy is open or a tube is in place. Water can be kept out by a pledget of lamb's wool in the ear canal or a cotton pledget thickly coated on the outside with petroleum jelly. I check these patients a week after a myringotomy to be sure it is healed and at two month intervals until the tubes have fallen out, usually within three to six months after insertion.

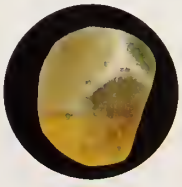
The mucoid type of fluid is so thick and tenacious that it is appropriately called a glue ear. It is aspirated only with difficulty through the eardrum, and occasionally must be removed through a tympanotomy. This thick, glue-like fluid is prone to recur, as the myringotomy usually heals long before the mucous membrane has returned to normal. Repeated myringotomies, as many as ten or twenty, were formerly required for this condition. Now polyethylene tubes are inserted initially when this thick, glue-like material is found. At times a subacute mastoiditis may accompany the serous otitis, which will necessitate a simple mastoidectomy before the condition can be eradicated. Usually the thin serous fluid readily responds to decongestants or to a myringotomy and removal of the eustachian tube obstruction. Occasionally, however, even serous fluid will repeatedly reform. For this, resection of the tympanic plexus of nerves which lies on the promontory of the middle ear has been carried out, as the tympanic branch of the glossopharyngeal nerve is the secretomotor nerve to the ear.

Failure to diagnose serous otitis is the most common cause of the recurrent, almost continuous otitis me-

Otoscopic Views



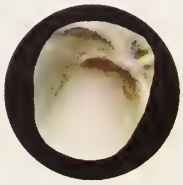
Normal



Acute Serous



Acute Purulent



Chronic Serous

dia seen in young children. In these cases a myringotomy will frequently provide a long-term cure without adenoidectomy or any other surgery. Failure to do this may allow the condition to go on to acute or subacute mastoiditis. Adhesive otitis media with scar tissue binding down the ossicles or tympanosclerosis may also result with permanent impairment of hearing. The prognosis for hearing with adhesive otitis or tympanosclerosis is usually poor. If the adhesions are removed, they reform, and the same is frequently true of tympanosclerosis even after a tympanoplasty. For many of these people a hearing aid is the only solution. The constant negative pressure in long standing serous otitis media may draw in either Schrapnell's membrane or the posterior superior portion of the eardrum forming a pocket to cause a chronic otitis media with cholesteatoma, which may not become apparent until twenty or thirty years later.

The non-medical complications of improper diagnosis or treatment may be even more serious. The irritable child, the frequent bouts of acute purulent otitis media with pain and fever, the expense of antibiotics and doctors, and the time lost from school or work affect the entire family.

In summary, serous otitis has many causes. There is a blocking of the eustachian tube and an inflammatory reaction in the middle ear mucosa, the latter usually caused by a mild infection. The treatment is to provide immediate drainage by decongestants and where necessary, by a myringotomy. The obstructing agent must be removed by surgery if it is adenoid or by oral decongestants, and antihistamines or nasal spray if it is an upper respiratory infection or allergy. Occasionally resistant cases require plastic tubes placed through the eardrum or other more radical surgery. Failure to treat properly leads to hearing loss which may be permanent, repeated acute otitis media or possibly even chronic otitis media with cholesteatoma.

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Pictorial Highlights of the 107th Annual Session

Wednesday, April 17, 1968















Photo No. 1—The lobby of the Parliament House was a beehive of activity as Delegates registered for the Annual Session of MASA. Photo No. 2—The Board of Censors, meeting also in its capacity as the Committee of Public Health and Board of Medical Examiners, met throughout the week. Photo No. 3—The MASA Board of Trustees met Wednesday to consider a full agenda of Association matters. Photo No. 5—The members of the American Society of Anesthesiologists gather together for dinner and their annual business session. Photo No. 6—Dr. Gunter Corssen, newly appointed chief and Professor of the Anesthesiologists, University Medical Center was the guest of the AMA. Photo No. 7—The Alabama Academy of Otolaryngology and Ophthalmology held a business meeting Wednesday afternoon to discuss legislative matters. Seated at the head of the table are Dr. Bruce Holding, left, and Dr. Theo Kirkland.

Pictorial Highlights of the 107th Annual Session

Thursday, April 18, 1968



Photo No. 1—Dr. Ira L. Myers, State Health Officer, accepts the William Henry Sanders Award at the First Annual Awards Luncheon. Photo No. 2—Ray Butts, Editorial Director of WSFA-TV, Montgomery, the recipient of the Douglas L. Cannon Medical Reporter Award. Photo No. 3—Dr. William C. Hannon of Mobile, winner of the coveted A. H. Robins Community Service Award. Photo No. 4—Mrs. Bobbie Jo Wallace Parsons, daughter of Gov. Lurleen Wallace, proudly displays the William Crawford Gorgas Award which she accepted on behalf of her mother. Photo No. 5—Participants on the Orientation program included, from left, Arthur Hess, Deputy Commissioner of the Social Security Administration; Alabama Atty. Gen. MacDonald Gallion, and Dr. E. L. McCafferty, Jr., president of MASA. Photo No. 6—Mr. Edwin C. Bramlett, president of the Southeastern Hospital Association, was a speaker on the Orientation Program. Photo No. 7—Dr. Saul Krugman, New York University School of Medicine, was a featured speaker for Thursday's Scientific session. Photo No. 8—Dr. Milford O. Rouse of Dallas, Texas, president of the American Medical Association, was an honored guest at the Annual Session. Photo No. 9—Dr. Carl A. Grote, Jr., Huntsville, chairman of the Committee on Public Relations, presided at the Awards Luncheon.

Pictorial Highlights of the 107th Annual Session

Friday, April 19, 1968











Photo No. 1—Lt. Gov. Albert P. Brewer was the featured speaker at the annual ALAPAC luncheon held during the Annual Session. Photo No. 2—Presiding at the ALAPAC luncheon was the state chairman of the political action group, Dr. E. B. Glenn of Birmingham. Photo No. 3—Dr. Paul B. McCleave, director of the AMA's Department of Medicine and Religion, was a program speaker. Photo No. 4—Guests at the head table for the ALAPAC luncheon included, from left, Dr. Hoyt Gardner, Mrs. John Chenault, Dr. Chenault, Mrs. E. B. Glenn, Lt. Gov. Brewer and Dr. Glenn. Photo No. 5—Other guests at the ALAPAC event were, from left, Dr. E. L. McCafferty, Jr., Mrs. McCafferty, Dr. Milford O. Rouse, Dr. Malcolm Todd, Mrs. Todd, and the Rev. Dr. Dotson M. Nelson.

Pictorial Highlights of the 107th Annual Session

Saturday, April 20, 1968










Photo No. 1—Dr. Hoyt Gardner, Louisville, Ky., secretary-treasurer of AMPAC, addressed the College of Counsellors and House of Delegates on the importance of political activity by physicians. Photo No. 2—Mrs. James C. Guin, Jr., outgoing WAMASA president, submits the Auxiliary report to the Counsellors and Delegates. Photo No. 3—Dr. John M. Chenault, chairman of the Board of Censors, addresses the Counsellors and Delegates. Photo No. 4—Dr. W. L. Smith, secretary-treasurer of MASA, speaking at business session. Photo No. 5—New officers elected at the business session are issued oath of office. They are, from left, Dr. C. Kermit Pitt, president-elect; Dr. Wood Herren, vice-president, Northwest District; Dr. J. D. Bush and Dr. Luther Hill, Board of Censors; and Dr. E. L. McCafferty, Jr., president. Photo No. 6—Dr. McCafferty presents the "Past-President" ribbon to outgoing president, Dr. E. Bryce Robinson, Jr. Photo No. 7—Dr. McCafferty delivers presidential inaugural address to Counsellors and Delegates. Photo No. 8—Board of Censors pose for official portrait. They are, seated, from left, Dr. John Davis, Dr. J. D. Bush, Dr. John M. Chenault, Dr. Wilmot Littlejohn and Dr. Paul Burleson; standing, from left, Dr. J. P. Collier, Dr. M. Vaun Adams, Dr. Luther Hill, State Health Officer Dr. Ira L. Myers, Dr. Eric Strandell and Dr. Hugh Gray.



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The American Medical Association stated that the regional medical programs had showed good progress in the early stages but urged that Congress order an early evaluation by a non-government agency.

The AMA position was outlined by Bland W. Cannon, M. D., of Memphis, Tenn., a member of the Association Council on Medical Education, in testimony before the House Subcommittee on Public Health and Welfare. The subcommittee was considering Administration legislation to extend the regional medical program law for five years.

Subcommittee members reacted favorably to an AMA recommendation that the extension be for only three years. Some of the congressmen also indicated opposition to a recommendation by Michael DeBakey, M. D., of Houston, Tex., that appropriations for the regional medical programs be increased sharply.

"We view with favor the early progress of RMP, its ability to build on existing patterns of medical care (sometimes adding new features or changing old ones as local demands and resources make possible) and the local flexibility which allows the program to make a real contribution to the health care of our nation," Dr. Cannon said. "At the same time, we recognize that the concept of the Regional Medical Program is still in its very early stage of existence and that it is difficult to fully appraise the program. We do not know, for example, how much this program adds to the stress on an already overtaxed supply of available medical manpower.

"There is some concern that the proliferation of federal health programs substantially contributes to the rise in health care costs. For this reason, we are pleased that H. R. 15758 provides for an evaluation of the program. We would suggest, however, that the evaluation begin July 1, 1968, rather than July 1, 1969, since 'evaluation' should be an integral part of the planning. We also suggest that the subcommittee consider further amending Section 102 to provide that the evaluation shall be made by a non-government agency . . .

"We recommend that the subcommittee delete the open-end authorization for funds for the four fiscal years ending after June 30, 1969. In view of the fact that we are still dealing with a relatively untried program, we believe it would be wise to limit the authorization to such sums as this subcommittee may determine to be reasonable, rather than to provide for 'such sums as may be necessary for the next four fiscal years.' "

Henry Brill, M. D., of Brentwood, N. Y., chairman of the AMA's Committee on Alcoholism and Drug Dependence, said that the AMA supported the part of the legislation authorizing federal grants for construction of facilities for a new program for alcoholic and narcotic addict rehabilitation.

"However," he said, "we have long felt that funds for staffing and operation are properly the responsibility of the community, once the major burden of construction has been met with federal assistance."

* * *

The American Medical Association and the Association of American Medical Colleges announced a joint policy designed to increase the number of medical students.

The statement "emphasized the urgent and critical need for more physicians if national



expectations for health services are to be realized," and listed immediate and long-range steps that should be taken.

Immediate steps:—

1. Increase the enrollment of existing medical schools.

2. Foster curricular innovations and other changes in the educational programs which could shorten the time required for a medical education and minimize the costs.

3. Meet the need for innovation in educational programs and to encourage diversity in the character and objectives of medical schools. The development of schools of quality where a primary mission is the preparation of able physicians for clinical practice as economically and rapidly as possible is to be encouraged.

"A longer-range approach to the need for physicians is the development of new medical schools," the statement said. "This approach will not solve our immediate, urgent need for more physicians but it is essential for meeting the national needs of 1980 and beyond.

"To implement the measure enumerated above will require adequate financial support from governmental and various private sources for:—

"1. Construction of facilities to expand enrollment of existing schools and to create new schools.

"2. Support of the operational costs of medical schools.

"3. Stimulation and incentive for educational innovation and improvement."

* * *

Wilbur J. Cohen, a key proponent of medicare, was named by President Johnson to succeed John W. Gardner as secretary of Health, Education and Welfare.

Cohen, now 54, started with the federal government in the early thirties and helped draft the social security program. Recog-

nized by Congress as an expert on social security, he was the leading architect of medicare and played a prominent role in getting Congressional approval of the program.

He had been undersecretary of HEW since June, 1965. For the previous four years, he had been assistant secretary of HEW.

At a news conference following his appointment to the top HEW post, Cohen foresaw health care accounting for as much as 50 per cent of total welfare costs. He urged that voluntary private health insurance be improved. But he said that he did not believe private programs could be improved sufficiently to eliminate the need for government help in dealing with the health care needs of low income groups and the disabled.

"Medicare and medicaid have had some impact on higher medical costs," Cohen said. "But I think doctors' costs are going to taper off. Hospital costs are going to continue to rise but there is a problem of antiquated and inefficient methods. This can be changed."

Soon after Gardner's resignation became effective, Cohen announced major steps in the reorganization of HEW's health activities. Unified direction of HEW's major health agencies was assigned to Dr. Philip R. Lee, Assistant Secretary for Health and Scientific Affairs. Dr. William H. Stewart, Surgeon General of the Public Health Service, was named principal deputy to Dr. Lee.

Dr. Lee was given direct authority over the Public Health Service and the Food and Drug Administration. Dr. Stewart and Food and Drug Commissioner James L. Goddard, M. D., will report directly to the Assistant Secretary, while continuing to carry out their present administrative functions.

Dr. Lee's responsibility also was expanded to include overall health policy direction and coordination of other health programs, including medicare, medicaid and the health activities of the children's bureau.

(Continued on Page 1308)

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(Continued from Page 1307)

In his 1968 message to Congress, President Johnson had directed the HEW secretary to submit "a modern plan of organization to achieve the most efficient and economical operation of the health programs of the federal government."

"In the past four years," Cohen said, "31 major new laws have been enacted that increase the Department's authority, responsibility and appropriations in the field of health.

"The total federal investment in health has grown from approximately $3 billion in 1960 to nearly $14 billion in 1968, and $16 billion proposed in 1969. Because of new programs, like medicare and medicaid, the HEW health investment alone has more than tripled in the past three years, from $2.6 billion in 1966 to $9.6 billion this fiscal year, and $10.9 billion proposed for 1969."

In a reassignment of agency responsibilities, the National Institutes of Health was expanded to include the present NIH, the Bureau of Health Manpower and the National Library of Medicine. The Health Services and Mental Health Administration was set up with responsibility for all other functions previously assigned to the Public Health Service. These two new agencies, along with the present Food and Drug Administration now make up an expanded and more comprehensive Public Health Service.

Dr. James A. Shannon, Director of the National Institutes of Health, was named Director of the newly constituted NIH. Dr. Robert Q. Marston, Director of the Division of Regional Medical Programs, was named Acting Administrator of the Health Services and Mental Health Administration. Dr. Goddard continues as Commissioner of Food and Drugs. The heads of these three agencies will report directly to Dr. Lee under the new organizational setup.





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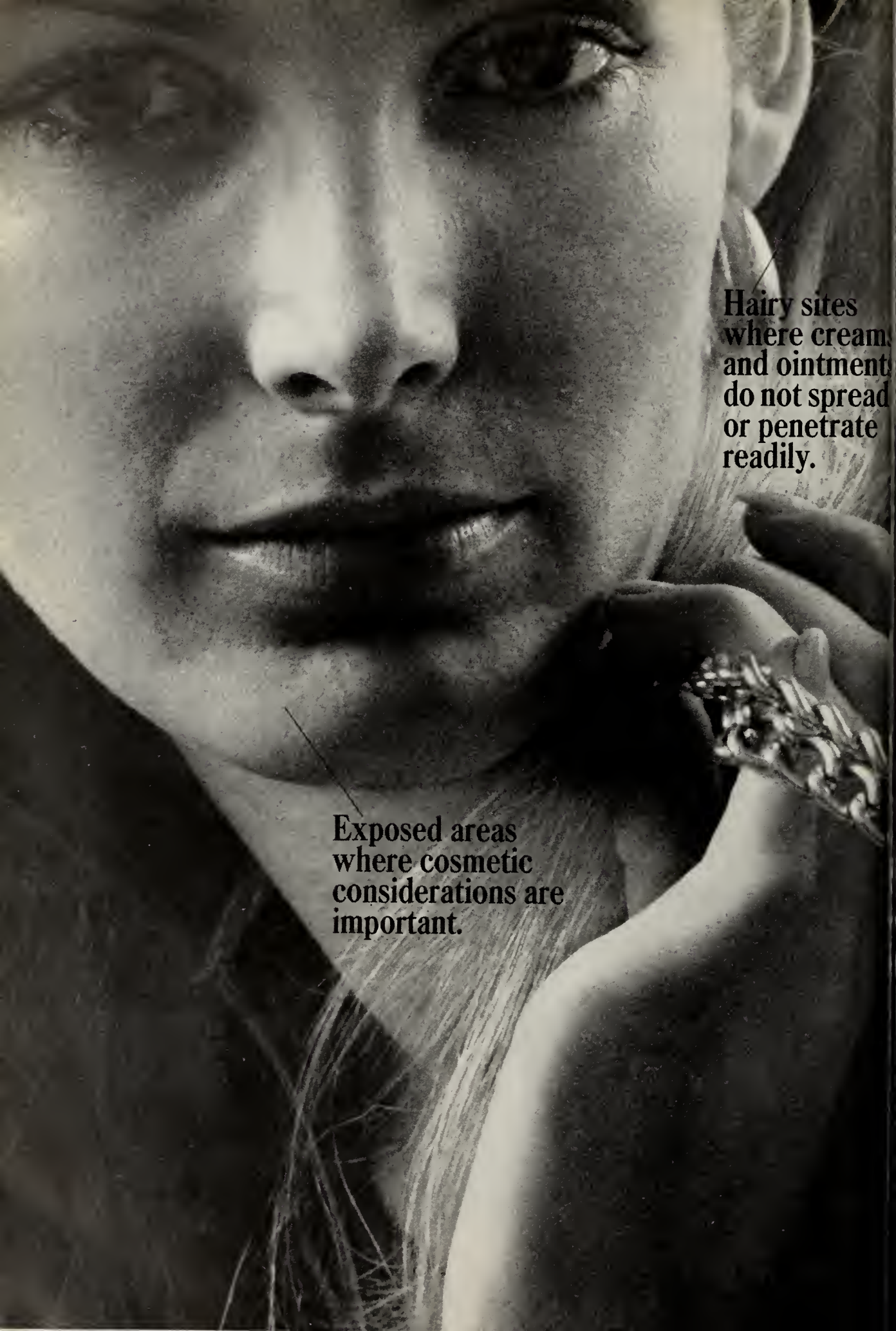
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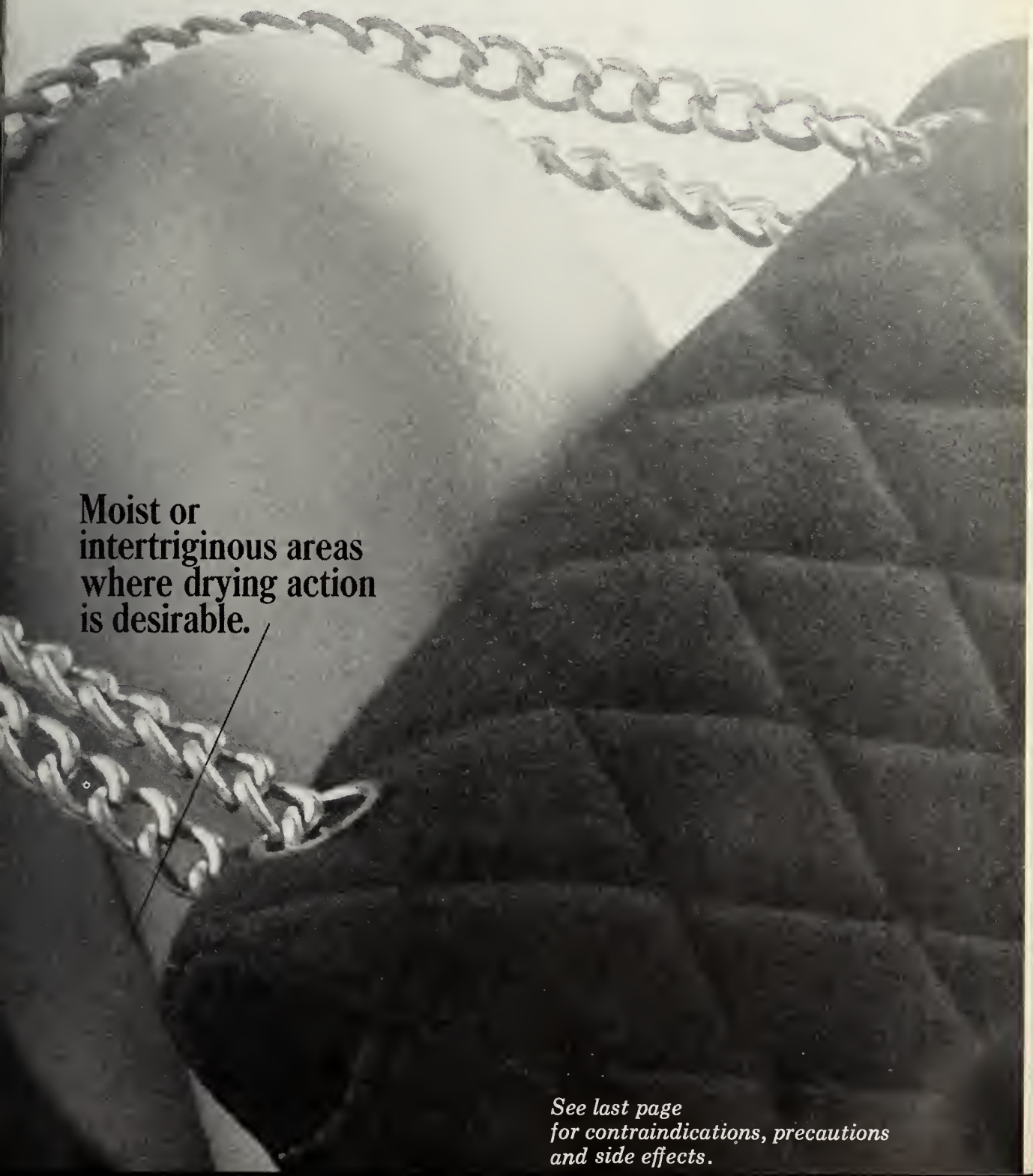
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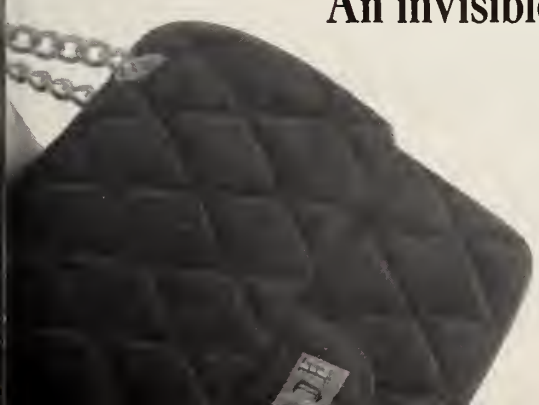
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First Federal Licensing Examination Scheduled

The first Federation Licensing Examination (FLEX), which has been in the development stage for more than seven years, will be administered June 18-20.

About 2,500 applicants are expected to be examined during 1968, although a definite figure is not available at this time since the states need not announce their decision regarding participation until April 10. It should be stressed that this is the first time a single examination for medical licensure has been prepared and is being administered for licensure in more than one state.

The Examination Institute Committee of The Federation of State Medical Boards of the United States was responsible for researching and developing the examination, and the National Board served in an advisory capacity and also provided the questions.

Previously, many physicians wishing to relocate and practice medicine is another state were compelled to be re-examined by that state. This has proved to be a constant source of annoyance among physicians in years past. It is hoped that FLEX will not only arrest that and similar problems, but at the same time achieve uniformity in licensing examinations, equivalent levels in the examinations, improvement in the quality of examinations, etc.

"Eligibility for the examination will be limited to those who have completed or nearly completed at least one year of internship or other graduate training as approved by the state board with the provision that the requirement of one year internship or graduate training may be waived in 1968 only, in any state where circumstances require. It is conceivable that the period of this waiver might need to be extended," the Committee stated.

The 3-day, 21½-hour test, which is administered by members of the state boards, will be repeated December 10, 11 and 12. For security's sake, it has been decided to conduct it on the same three days throughout the United States. Scores will be reported directly to the participating states, which will then have the option of interpreting them as they see fit.

EXCELLENT OPPORTUNITY FOR AN INDUSTRIAL PHYSICIAN

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Physicians-Population Ratio in Alabama

	Ratio	Total	Population (Total)
Autauga	1/3183	6	19,100
Baldwin	1/1830	30	54,900
Barbour	1/1892	13	24,600
Bibb	1/1787	8	14,300
Blount	1/3671	7	25,700
Bullock	1/1914	7	13,400
Butler	1/2711	9	24,400
Calhoun	1/2069	52	107,600
Chambers	1/1643	23	37,800
Cherokee	1/3260	5	16,300
Chilton	1/3671	7	25,700
Choctaw	1/1977	9	17,800
Clarke	1/1976	13	25,700
Clay	1/2050	6	12,300
Cleburne	1/5450	2	10,900
Coffee	1/1700	18	30,600
Colbert	1/1563	33	51,600
Conecuh	1/2514	7	17,600
Coosa	1/10700	1	10,700
Covington	1/1690	21	35,500
Crenshaw	1/2114	7	14,800
Cullman	1/2275	20	45,500
Dale	1/4787	8	38,300
Dallas	1/1395	41	57,200
DeKalb	1/3441	12	41,300
Elmore	1/2178	14	30,500
Escambia	1/1842	19	35,000
Etowah	1/1305	76	99,200
Fayette	1/2300	7	16,100
Franklin	1/1460	15	21,900
Geneva	1/2220	10	22,200
Greene	1/3375	4	13,500
Hale	1/3900	5	19,500
Henry	1/2533	6	15,200
Houston	1/1118	48	53,700
Jackson	1/2440	15	36,600
Jefferson	1/868	794	689,900
Lamar	1/2366	6	14,200
Lauderdale	1/1173	57	66,900
Lawrence	1/2711	9	24,400
Lee	1/2154	24	51,700
Limestone	1/2853	13	37,100
Lowndes	1/5133	3	15,400
Macon	1/1477	18	26,600
Madison	1/1608	129	207,550
Marengo	1/2250	12	27,000
Marion	1/1550	14	21,700
Marshall	1/1670	30	50,100
Mobile	1/1251	300	375,400
Monroe	1/2787	8	22,300
Montgomery	1/1011	189	191,100
Morgan	1/1203	55	66,200
Perry	1/2471	7	17,300
Pickens	1/3633	6	21,800
Pike	1/3237	8	25,900
Randolph	1/2155	9	19,400
Russell	1/3380	15	50,700
St. Clair	1/3614	7	25,300
Shelby	1/2791	12	33,500
Sumter	1/3316	6	19,900
Talladega	1/2087	32	66,800
Tallapoosa	1/1521	23	35,000
Tuscaloosa	1/1080	111	119,900
Walker	1/1928	28	54,000
Washington	1/3850	4	15,400
Wilcox	1/3100	6	18,600
Winston	1/2466	6	14,800
Total	1/1411	2,524	3,562,850

1967 MID-YEAR POPULATION*—Bureau of Maternal and Child Health, Alabama Dept. of Public Health, Harold Klingler, M. D., Director.

*Statistics submitted through the cooperation of the Bureau of Vital Statistics.

Pamphlet On Emergency Guidelines Available

Can your patients recognize a real emergency? Or is, as they see it, every bump or bruise, ache or pain an emergency?

The AMA's new pamphlet, "When To Call or See Your Physician," establishes guidelines helpful to patients determining when to seek medical aid.

The pamphlet lists four indications which call for immediate medical attention—severity, persistence, repetition and doubt. Any one of the four is sufficient; two or more increase the urgency.

In addition, the pamphlet cites circumstances which indicate that a doctor's help is needed. Some of the common conditions described are blackouts, breathlessness, dizziness, fatigue, headaches, indigestion, itching, sores and swelling.

Single review copies may be obtained from the AMA's Health Education Department. Quantity orders are available from the Order Department at 15 cents each; 12 cents each for 100-499; 10 cents each for 500-999; 8 cents each for 1000 or more.



What's your basis of choice for therapy of edema in congestive heart failure?

Sodium retention and edema are nearly universal problems in congestive heart failure—and diuretic therapy the generally accepted solution. In this situation HYDROMOX* (Quinethazone) produces quick and thorough diuresis—comparable in every way to that produced by the thiazides.

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Hydromox* Tablets
Quinethazone

Precautions: Electrolyte abnormalities may be aggravated or produced. Caution is important during prolonged or intensive therapy and when salt intake is restricted. Hypokalemia has been mild and infrequent, and other electrolyte abnormalities rare. The possibility of potassium depletion and its toxic sequelae must be kept in mind, particularly in cirrhotics and patients receiving digitalis. As a preventive measure the use of foods rich in potassium, such as orange juice, may be desirable.

Although not a thiazide, HYDROMOX may possess certain characteristics of the thiazides. They have been known to cause jaundice with liver involvement and pancreatitis; hematological complications such as purpura with or without thrombocytopenia and leukopenia (neutropenia); increases of serum uric acid; decreased glucose tolerance as evidenced by hyperglycemia and glycosuria thus aggravating or provoking diabetes mellitus and azotemia in patients with renal disease; photoallergy. Discontinue use a few days prior to elective surgery. When added to a regimen that includes ganglionic-blocking agents, the dosage of these latter preparations should be reduced. Also reduce dosage when one or more of these antihypertensive agents is added to an established HYDROMOX regimen. Contraindicated in anuria. Observe for possible hematologic complications.

Side Effects: Skin rash; gastrointestinal disturbances (chiefly nausea), weakness, dizziness. These seldom require cessation of therapy, and can be relieved by reducing dosage or correcting electrolyte imbalance.

Warning: Enteric coated potassium tablets have been implicated in small bowel lesions and should be used only when adequate dietary supplementation is not practical.

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...adsorbs irritants with kaolin,
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In children, Parepectolin may be used to control diarrhea promptly and prevent dehydration, until etiology has been determined. In some cases, Parepectolin may be all the therapy necessary.

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Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin (2½ grains) 162 mg.
Kaolin (specially purified) (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Children's Dose: One or two teaspoonfuls three times daily.

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New Reminder Issued On Cigarette Hazards

As an additional cautionary reminder about the health effects of cigarette smoking, the AMA has published a new Timely Tip—"The Cigarette—A Dubious Companion."

This Timely Tip points out that "an alarming number of Americans persist in making cigarettes their constant companions," although scientific evidence shows that cigarette smoking is dangerous to health.

"The Cigarette—A Dubious Companion" describes the effects of each puff of smoke as it enters the breathing passages and air sacs of the lungs and stresses that certain conditions and diseases are believed to be aggravated by cigarette smoking.

Concluding that "cigarettes may seem to be harmless companions because their bad effects are not immediately noticeable," the tip cautions that "suddenly, without warning, a serious problem threatening health and even life may develop."

There are 100 Timely Tips to a set. Copies are available from the Order Department at 20 cents each for 1-4 sets and 15 cents for 5 or more sets.

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.

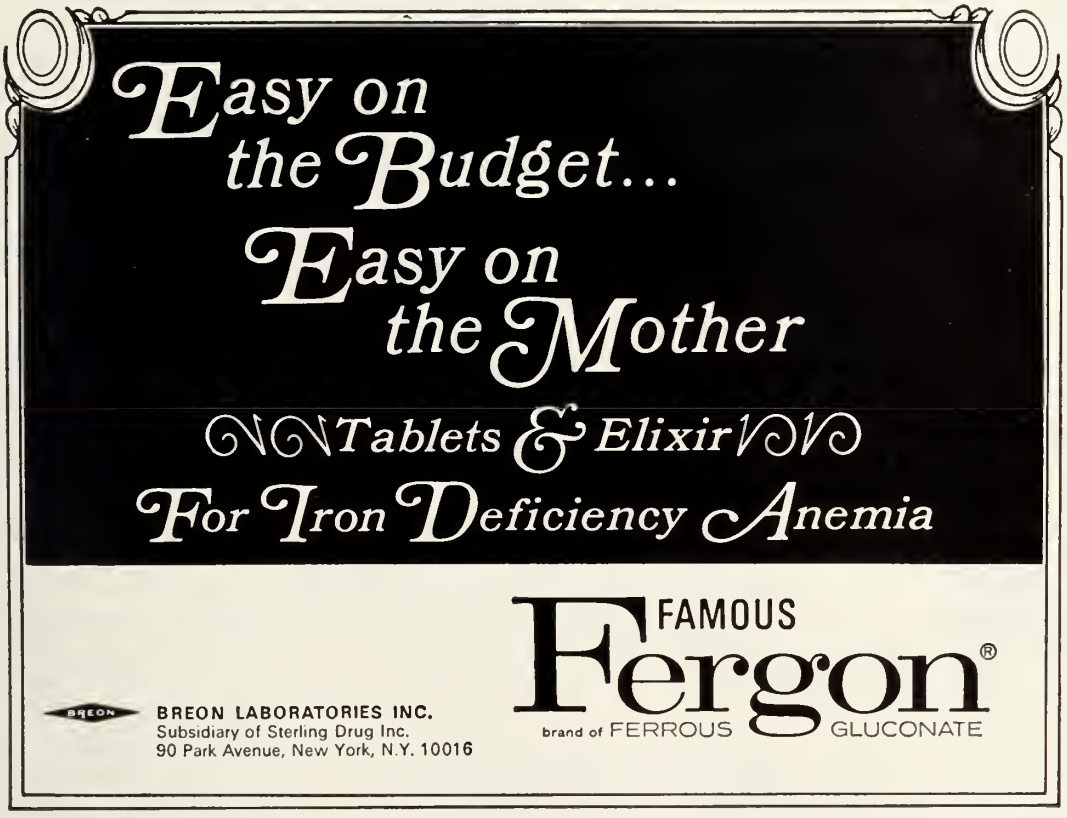


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SCIENTIFIC PROGRAM

EIGHTH ANNUAL MEETING—ALABAMA CHAPTER—AMERICAN ACADEMY OF GENERAL PRACTICE

JUNE 4, 5, and 6, 1968

HOTEL STAFFORD—TUSCALOOSA, ALABAMA

TUESDAY AFTERNOON, JUNE 4

12:00 Noon—Doctors' Championship Tennis Tournament

5:30- 7:00—Board of Directors Meeting

7:00- 8:00—Cocktail Party for Early Arrivers and Exhibitors—Courtesy of Durr Surgical Supply Company

WEDNESDAY MORNING, JUNE 5

7:00 A. M.—Golf Tournament—Tuscaloosa Country Club

WEDNESDAY AFTERNOON, JUNE 5

Presiding: Jerre White, M. D., Annual Meeting Chairman and Vice-President, Alabama Chapter, American Academy of General Practice

12:15-12:30—Call to Order

Invocation—Earl Glenn, M. D., Tuscaloosa

Welcome Address—Jerre White, M. D.

12:30- 2:00—Luncheon

Paul "Bear" Bryant, Speaker

Moderator: Grover C. Murchison, Jr., M. D., President, Alabama Chapter, American Academy of General Practice

2:00- 2:30—"Heart Block"—James Y. Bradfield, M. D., Dallas, Texas



BRYANT

2:30- 3:00—"Sarcoidosis"—Charles LeMaistre, M. D., Vice-Chancellor for Health Affairs, University of Texas, Austin, Texas

3:00- 3:20—View Exhibits

3:20- 3:50—"Basic Principles of Roentgen Diagnosis"—J. E. Miller, M. D., Dallas, Texas

3:50- 4:30—Questions and Answers

4:30- —Drawing of Door Prize

6:00- —Oyster Bar and Beer—Courtesy of Marion Laboratories, Tuscaloosa Country Club



BRADFIELD



LeMAISTRE



MILLER

THURSDAY MORNING, JUNE 6



DUNLOP

8:00- 9:00—Past President's Breakfast

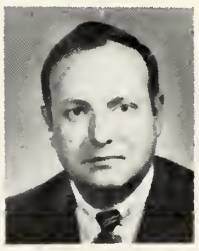
Presiding: Jerre White, M. D., Tuscaloosa
Moderator: J. Donald Smith, M. D., Tuscaloosa

9:00- 9:30—"How Much Psychiatry in General Practice"— Edwin Dunlop, M. D., Attleboro, Massachusetts

9:30-10:00—"The Recognition and Treatment of Depressive Reactions"— E. Adams Daneman, M. D., St. Simons Island, Georgia

10:00-10:20—View Exhibits

10:20-10:50—"The Management of Marital Conflict"—Charles Llewellyn, M. D., Associate Professor of Psychiatry, Duke University School of Medicine, Durham, North Carolina



DANEMAN

11:00-12:15—Group Workshops

THURSDAY AFTERNOON, JUNE 6

12:30- 2:00—Luncheon and Business Meeting

Presiding: Jerre White, M. D., Tuscaloosa
Moderator: T. Riley Lumpkin, M. D., President-Elect, Alabama Chapter of the American Academy of General Practice

2:15- 2:45—"One Dozen Eye Problems that Vex the General Practitioner" —Malcolm A. McCannel, M. D., Minneapolis, Minnesota

2:45- 3:15—"Stroke"—Maynard I. Shapiro, President-Elect, American Academy of General Practice, Chicago, Illinois



LLEWELLYN

3:15- 3:30—View Exhibits

3:30- 4:00—"New Methods in Dermatological Therapy"—Robert Goltz, M. D., Professor and Head, Division of Dermatology, University of Colorado Medical Center, Denver, Colorado

4:00- 4:30—Questions and Answers

4:30- —Drawing of Door Prize

6:30- 7:30—Cocktails

7:30- —Dinner—Las Vegas Party—Dance



GOLTZ



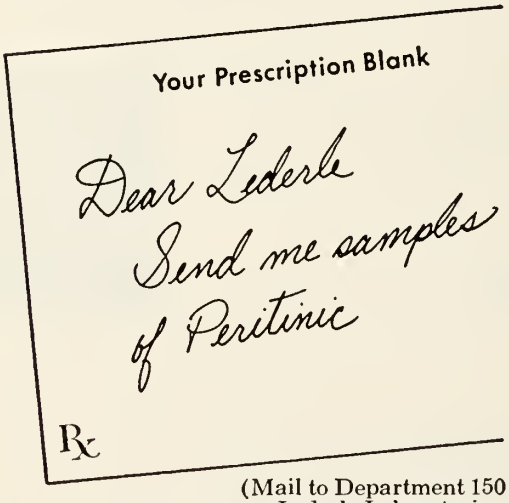
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Vitamin B_{12}	50 mcgm
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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Indicated when anxiety, tension and apprehension are significant components of the clinical profile.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral*—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

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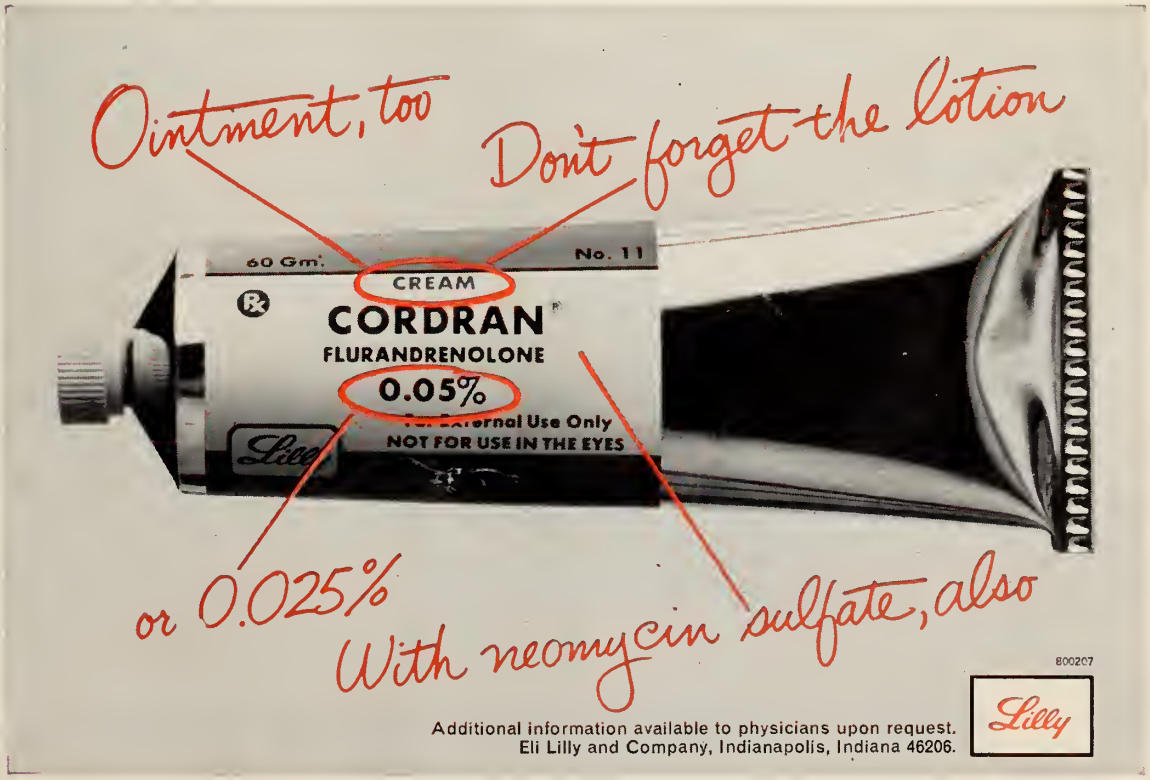
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JUNE 1968

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(1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., *38*:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

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THE JOURNAL

of the

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Volume 37 • June, 1968 • No. 12

Office of Publication

19 So. Jackson St. Montgomery, Ala. 36104

Subscription Price $5.00 Per Year

$1.00 Per Copy

Second Class Postage Paid at Montgomery, Alabama. Published monthly in Montgomery at 19 South Jackson Street.

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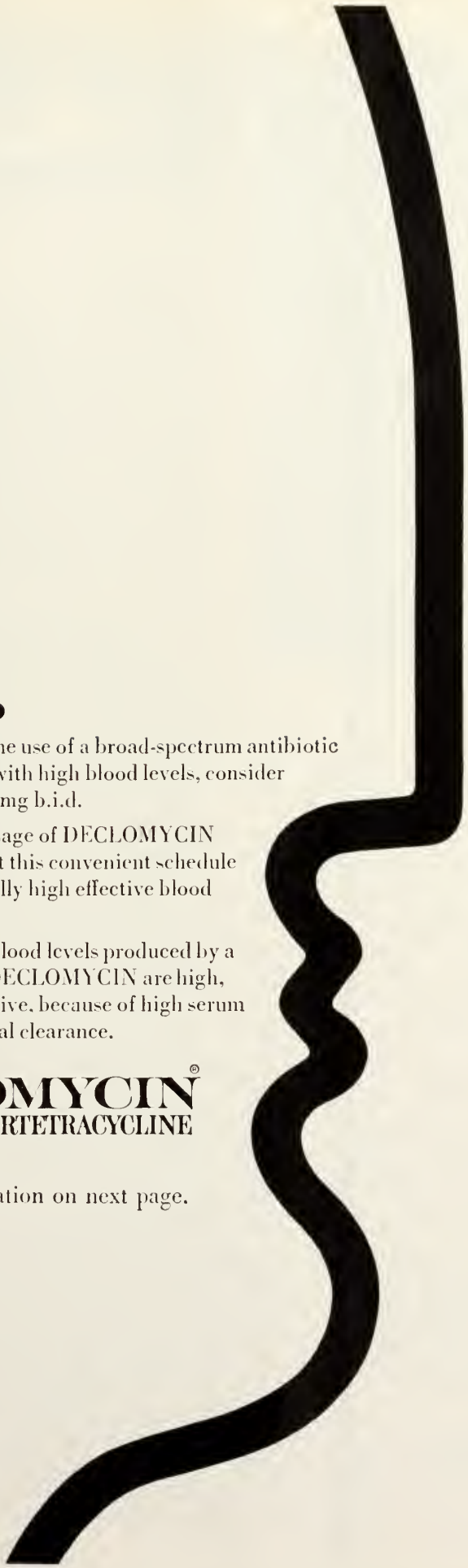
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Prescribing information on next page.



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DECLOMYCIN Demethylchlortetracycline should be equally or more effective therapeutically than other tetracyclines when the offending organisms are tetracycline-sensitive.

Contraindication: History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

In the treatment of syphilis a dosage schedule of a total of 12 to 18 Gm given in equally divided doses over a period of 10 to 15 days should be followed. Close follow-up observation of the patient is recommended, including appropriate laboratory tests, since demethylchlortetracycline has not had adequate evaluation in all stages of syphilis. Spinal fluid examination should be included as part of this follow-up.

Acute gonococcal anterior urethritis in males has been treated effectively with a single dose of 600-900 mg of DECLOMYCIN Demethylchlortetracycline. Individuals unable to tolerate large single doses due to gastrointestinal side effects may be treated with 150 mg every 6 hours for a minimum of 4 doses or 300 mg every 12 hours for a minimum of 2 doses. Females should be treated with a dosage of 150 mg every 6 hours or 300 mg every 12 hours until a cure is effected.

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President's Page



E. L. McCafferty, Jr.

Each of us was happy to renew old friendships and to make new ones at the Annual Session of the Medical Association of the State of Alabama in Birmingham April 18-20, 1968. It was also most gratifying to learn that we had one of the largest registrations ever recorded. Because of the fine quality of our speakers, as well as the wide variation of topics covered, I am sure none of our physicians, nor their wives, left the session with a feeling of disappointment.

Dr. E. Bryce Robinson presented what in my judgment was a program excellent in every respect, some part of which appealed to the interest of everyone there. The quality of the program was demonstrated by the fine attendance and the enthusiastic reception of the speakers' subjects which varied from "The Tired Mother Syndrome" to "The Progress in the Surgical Treatment of Heart Disease."

The Jefferson County Medical Society, with Dr. Hiliary Henderson as its president, was a most gracious host and to all of its members the Association is deeply indebted. It was a tremendous meeting and I sincerely regret that all the doctors in Alabama and their wives could not attend. I hope that each of you will make every effort to attend the annual meeting in Huntsville next year.

Even though the scientific program and the pleasure of seeing our friends in a convention atmosphere were the highlights of the meeting, the social side was not neglected. The bands were great and the swingers were really swinging. The ladies looked lovely, but two of the gentlemen I think deserve special mention—Dr. S. Buford Words' trousers were outstanding in the new look and Assistant Executive Director Bob Ingram not only did a great job during the day but also performed with the best of the dancers in the evening.

During these times of changing social responsibility it behooves us all to keep informed not only as it affects us in our day-to-day practice but to help us in trying to formulate our plans for the future. The Annual Session provides a forum that gives us an opportunity to hear the programs of our state and national leaders and to discuss these programs with our colleagues from the other areas of our state. When opinions are weighed and practical conclusions reached, then can the needs of our physicians be best served and in the long run, the best interest of our patients as well.

If an excellent scientific program, good fellowship, and a mature forum makes for a good meeting, then those of us who were fortunate enough to attend the 107th Annual Session were well rewarded.

E. L. McCafferty, Jr.

The Woman's Auxiliary

President, Mrs. R. K. Wilson, Sr.
President-Elect, Mrs. B. H. Johnson, Jr.
Northeast District Vice President, Mrs. Eugene H. Bradley
Northwest District Vice President, Mrs. Gene Qualls
Southeast District Vice President, Mrs. George Andrews
Southwest District Vice President, Mrs. G. William Wiles
WAMASA Editor, Mrs. William L. Smith

AUXILIARY PLEDGE

"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation and ever sustain its high ideals."

Inaugural Address



Mrs. Robert K. Wilson, Sr.

Your president feels very keenly the responsibility that is hers, as she assumes this office, and she pledges her time, interest and dedication to the task that lies ahead. She will give of her best; she will strive to represent this organization in a worthy manner; she looks forward with great anticipation to serving with you through this organization. The theme of this administration is "Concern and Involvement." Concern is good; it is vital to the success of any undertaking, but in itself it has no value. Unless it spurs one on to definite action, to involvement, it is a spiritless, inanimate emotion. As Auxiliary members, we are concerned about the medical schools of our nation, and about the facilities and equipment for scientific research. We are concerned about worthy young people who desire to further their education in medical fields, and do not have the financial means to do so. We become involved through AMA-ERF. When we contribute through this channel, we are giving of ourselves in terms of time, energy and money. We have been involved for a long time; let us become more involved this year. We are concerned because of the great need for trained medical personnel. We have been told that one out of every ten high school students must be recruited for Health Careers, in order for the needs to be filled. There is a serious shortage of registered nurses, as 300,000 R. N.'s are needed now, and retired nurses are being urged to return to active duty. Concern is not enough. We become involved, when we do something about this situation; when we sponsor Health Careers programs in the schools; when we encourage the formation of Health Careers Clubs; when we urge retired nurses to return to work. We need people who want to help people, and it is our responsibility to encourage individuals to engage in a challenging career in the field of medicine. We are concerned about the interference of the Federal Government in matters of health. We abhor much of the legislation that has passed in regard to health. We cannot, we dare not, sit idly by and merely express our deep concern. We become involved in legislation, when we first of all become informed, then act. In the year ahead, there will be much to stir us to action. Most of the legislation will be concerned with an expansion of the health measures already in effect,

causing even deeper inroads by the government into the field of medicine. We are involved when we are alert, when we work closely with our legislators, when we support organized medicine, and let it be known that we do. In this election year, there will be much for us to do, if we become involved through AMPAC and ALAPAC. We are concerned that there is a gap of more than 900 members in our membership report, more than 900 doctors' wives who are not affiliated with the Auxiliary. This is one of our greatest concerns, because we realize the potential power that exists in these women. We need them so very much in carrying out our worthy projects, in meeting our goals. They need the Auxiliary, to bring to them the satisfaction and rewarding experiences that could be theirs if they were Auxiliary members. We become involved when we invite these women to our meetings, when we talk to them about the Auxiliary, when we urge them to become Members-at-Large, if there is no Auxiliary in their county. These are the four emphases of this administration: AMA-ERF, Health Careers, Legislation and Membership. We are concerned about the health of our communities, but we do not stop there. We become involved in this matter, when we take part in Immunization clinics, in assisting in blood programs, when we teach First Aid classes, as we actively participate in improving health conditions in our communities. We are concerned about the health of people in other countries, but we are more than just concerned. We take action as we do something about these needs, providing pharmaceuticals and other necessary articles for the well being of our neighbors in other lands. We are concerned about being prepared for disasters, and for taking proper safety measures, but being concerned alone will not solve any problems. We become involved through the Disaster-Preparedness-Safety program, and we take action as we initiate safety measures for the home, the highway, and the community. Mental Health is of vital importance, and we realize that in these days of confusion, unrest and tension, it is more important than ever before. Concern becomes involvement, when we volunteer our services in mental hospitals and clinics, when we study this subject in our Auxiliaries and become better informed of the needs. We are concerned about the type of movies and television programs to which our youth is exposed. Are we concerned enough to become involved, by expressing our disapproval or approval, and letting our voices be heard, as we contact the television stations and sponsors, and the motion picture managers? When our names are mentioned, what is the image that comes to mind? Are we associated with social functions, teas and flowers, are we pictured as "social butterflies," or are we where the action is? We, the doctors' wives, are powerful ambassadors for good or bad. Our influence will be felt wherever we are, we can be sure of that. It is our decision as to what kind of influence that will be. A minister one Sunday morning preached his heart out on the subject of involvement. He felt the need of this sermon, for he knew that many of his members were not really involved in the business of religion. He was thoroughly exhausted at the end of the message, because of his emotion and sincerity. As he stood at the door to greet the people coming out, the first lady to approach him shook his hand, then said, "Preacher, isn't there anything that can be done about the air conditioning? It was too cold in church today." Too many people are living on the fringes of religion, not even knowing what being involved really means. Too many doctors' wives are living on the fringes, too. May we become more involved, and may we be able to attract others to join with us in our concern and involvement. Your president would ask two things of you, at the beginning of this new year: first of all, your prayers. Secondly, she needs your support and cooperation. It is only as we work together in harmony, loyalty and dedication, that we can accomplish the task before us.

Louise M. Wilson

Mrs. Robert K. Wilson, Sr.



Lurleen Burns Wallace

The people of the State of Alabama—especially the physically and mentally afflicted—have suffered a grievous loss in the death of Governor Lurleen Burns Wallace. No less bereaved is the Medical Association of the State of Alabama who, as the constituted State Board of Health, had the honor of serving under Mrs. Wallace as titular chairman.

No one person in the history of Alabama has accomplished so much for the unfortunate citizens of this State in such a brief span of time. Immediately upon assuming the helm of office Mrs. Wallace launched upon a campaign to improve the physical and medical facilities for the mentally ill.

She was acutely aware of the needs of the poor people and her name will go down in history as their strongest champion.

Into the office of Governor now enters the Honorable Albert Preston Brewer of Decatur, Alabama, himself a proven friend of this Association and the causes which it espouses. As a member of the Legislature, as Speaker of the House of Representatives, and as President of the Senate, Governor Brewer has never turned a deaf ear to the recommendations of Medicine. It can be said without reservation that his compassion for the weak and downtrodden will equal that of his predecessor.

A review of the past five years will show that more progress has been made in the field of medicine than in the preceding 100 years. Vast sums have been appropriated for expanded educational facilities and new growth looms on the horizon; George Wallace, during his turn as Governor, surely saved the Department of Health from financial bankruptcy; within the past 16 months Governor Lurleen Wallace revitalized the mental health program and made certain that adequate sums are available to solve this most difficult problem.

The rapport which has existed between the Governor's office and the medical profession since 1961 cannot be equaled in any other state in the nation.

Though we mourn with grieving hearts the death of our lady governor, we look to the future with confidence that her successor will carry forth ably and conscientiously in her footsteps.

New Officers of MASA Welcomed

The Journal takes this opportunity to welcome into the official family of the Association our new President-Elect and our new Vice-President for the Northwestern Division.

President-Elect C. Kermit Pitt of Decatur and Vice-President Wood Herren of Birmingham have already shown great enthusiasm for the offices which were unanimously voted to them in the 1968 Annual Session. Both fully understand the sacrifices which will be demanded of them if they are to effectively fulfill their duties.

The Journal predicts that, during the coming year, physicians of Alabama will hear

(Continued on Page 1332)

The muscle relaxant that works before you write a prescription

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CONTRAINDICATIONS: Due to its anticholinergic action, NORFLEX should not be used in patients with glaucoma, pyloric or duodenal obstruction, stenosing peptic ulcer, prostatic hypertrophy or obstruction at the bladder neck, cardiospasm (megaesophagus) and myasthenia gravis. Use with caution in patients with tachycardia. Do not use propoxyphene (Darvon®) concurrently.

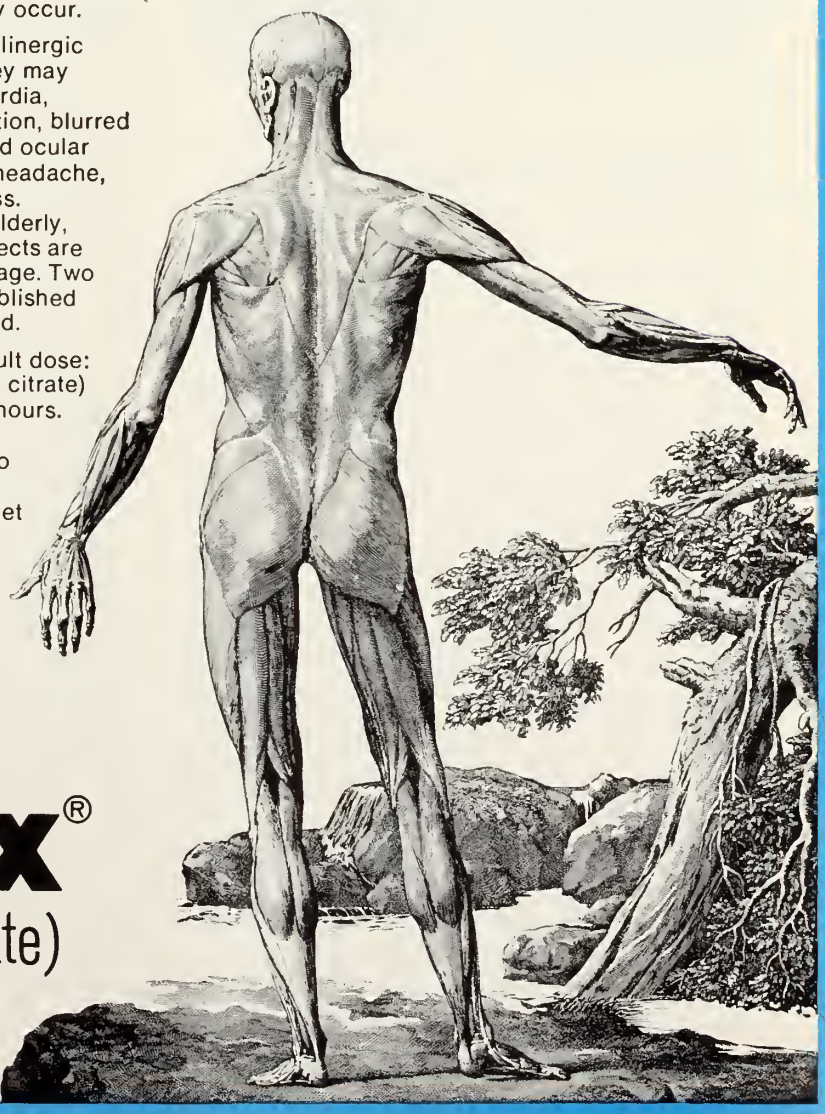
WARNING: Transient lightheadedness or dizziness following NORFLEX-INJECTABLE may occur.

SIDE EFFECTS: Due mainly to anticholinergic action and usually at high dosage. They may include dryness of the mouth, tachycardia, palpitation, urinary hesitancy or retention, blurred vision, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, and drowsiness. Infrequently, mental confusion in the elderly, urticaria or other dermatoses. Side effects are usually eliminated by reduction in dosage. Two cases of aplastic anemia, with no established causal relationship, have been reported.

DOSAGE: **INJECTABLE** — Average adult dose: one ampul, 2 cc. (60 mg. orphenadrine citrate) I.M. or I.V. May be repeated every 12 hours. Relief may be maintained with one NORFLEX tablet b.i.d. **TABLETS** — Two tablets per day for adults, one in the morning, one in the evening. Each tablet contains 100 mg. orphenadrine citrate.

For full information, see Package Insert or P.D.R.

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NEW OFFICERS WELCOMED

(Continued from Page 1330)

many good reports of the activities of these officers.

It also should be noted in passing that the Board of Trustees has gained a new member to succeed the highly effective and much respected John Day Peake of Mobile. He is Dr. J. Richard Moore also of Mobile, who will represent the 1st Congressional District. The Trustees are fortunate to have returned to their ranks for another term Drs. Robert M. Miller, Sr., of Decatur, representing the 8th District and Arthur F. Toole of Talladega representing the 4th District.

Retiring from the Board after distinguished service are Dr. J. O. Finney, Past President of the Association, and Dr. Joseph Campbell of Birmingham who had served four years as Vice-President of the Northwestern Division.

No Physician Ever Wins In Malpractice Litigation

"A malpractice suit, even if it has no merit and is successfully defended in court, nevertheless causes immeasurable harm to the professional and personal reputation of the physician. Regardless of the outcome, in the eyes of many the doctor will always be guilty. It is a regrettable truth that no doctor ever truly wins in a malpratice case."

These words, so painfully true, come from an address given by Alabama Attorney General MacDonald Gallion at the 1968 Annual Session. The full text of his remarks on the vexing and increasing physician problem of malpractice suits is printed elsewhere in this issue of *The Journal*. It is worth reading.

General Gallion looked at malpractice litigation, not through the eyes of a physician, but through the eyes of a layman who is learned in the law. From that vantage point, he was able to get a broader view of the overall situation than could ever be possible by a member of the medical profession.

Gallion made a number of excellent points, but one which we feel stands out was his suggestion of the leading provocation for legal action against physicians—a breakdown of the physician-patient relationship. In two short sentences, the Attorney General put his finger on what may be the major source of most malpractice suits: "A patient who has a feeling of friendly trust toward his physician is not likely to sue him even when he is displeased with the results of some treatment. Almost all malpractice suits charging negligence originate from some incident or misunderstanding between the patient and the physician."

Had Gallion sought to expand on the two sentences quoted above he would have found a fertile field. The record is indelibly clear that the alarming rise in malpractice suits filed against physicians has coincided with an admitted, if regretted, de-personalization of the physician-patient relationship. Organized medicine, faced with the challenge of providing ever-more sophisticated health care for an ever-increasing population, has been compelled to cast aside the time-consuming role played by the beloved "family doctor" of the past.

It is an ironic paradox that even though the doctor of today practices far better medicine than did his counterpart of 50 years ago he is held in far less personal or professional respect. Or, to quote directly from the April 15 issue of *Medical Economics*, "There is considerable irony in the fact that the turn-of-the-century doctor—whose science was meager and whose patient mortality was high—was probably more respected and admired than today's surpassingly superior physician."

What is the solution to this painful and sometimes costly dilemma? General Gallion offered no solution in his remarks. He could not be expected to have one. It would be ridiculous to suggest that the physician of today revert to the type of practice carried on by the physicians of the past. It would not be ridiculous to suggest that the physician of today seek to emulate his colleagues of the past in his personal relationship with those who have entrusted him with their care.

A Welcome To Dr. Alphin

It is with justifiable pride that we welcome Dr. Thomas Henry Alphin as a new member of the health team in Alabama. Dr. Alphin has been appointed by the State Committee of Public Health to a newly-created position with the imposing title of "Medical Services Director."

If the title is imposing, then the responsibilities which go with the position are the same. It will be Dr. Alphin's primary responsibility to direct and coordinate the Title XIX program in Alabama. In the administration of this vast program he will of necessity be deeply involved in all of the other many and varied federal medical programs.

Dr. Alphin comes to Alabama with splendid credentials for this important assignment. It would seem that every position he held in the past was specifically designed to equip him for the position he now occupies in Alabama.

A native of Virginia, Dr. Alphin earned a Bachelor's degree from Washington and Lee, a Master's degree in biology from the University of Virginia, and his Medical degree from the University of Virginia Medical School. He then joined the U. S. Public Health Service as a Senior Assistant Surgeon, following which he served for three years as chemical warfare defense officer for the Civil Defense Administration.

In 1952 Dr. Alphin joined the Washington office of the AMA where he served for six years, the final four as director of that office. In this position he was the chief lobbyist for the AMA in dealing with the Congress. He interrupted his AMA service for a few months in 1955 to serve as the assistant dean of medicine at the University of Missouri Medical School.

In 1958 Dr. Alphin joined the Equitable Life Assurance Society of the United States as Associate Medical Director. When he left Equitable to come to Alabama he held the position of Medical Director and Assistant Vice President.



Dr. T. H. Alphin

One of Dr. Alphin's major assignments with Equitable has been in the fields of Medicare and Medicaid. This experience should be of particular benefit to him in Alabama.

Thus we have in the person of Dr. Alphin a man who by reason of his training and experience is knowledgeable in medicine, politics and insurance. He also comprehends fully how vital it is to organized medicine that the Title XIX program in Alabama not founder as it has in a number of other states.

The physicians of Alabama vigorously insisted that they, through the State Board of Health, be given control of Title XIX. Such control was forthcoming. To fail now could prove to be disastrous.

As competent as Dr. Alphin might be, he will still need a great deal of help in this tremendous undertaking. He can anticipate much assistance from within the Health Department and from the Medical Care Advisory Committee, chaired by Dr. J. Garber Galbraith. But even all of this talent is not enough without the cooperation and encouragement of every medical doctor in the state.

A Trip To The Mountain

The increasing demand for a better flow of opinions from physicians in the grass roots—most especially those in the smallest counties—will be met during the coming year under a program announced this month by the new President of the Medical Association of the State of Alabama, Dr. Emit L. McCafferty, Jr.

Dr. McCafferty has reasoned that, since the mountain will not come to Mahomet, then Mahomet must go to the mountain if the twain shall meet. Even though the 107th Annual Session of the Association had the largest registration last April in its history, the percentage of dues-paying members who attended one or more of the outstanding programs was pitifully small.

Nor can the fact be ignored that not a single suggestion or criticism was forthcoming when the College of Counsellors and House of Delegates met in Annual Business Session on the concluding day. Surely, of all the things which were done, or not done, by the officers, boards and committees of the Association, some member must have had a divergent opinion.

It is inconceivable that every physician in Alabama is in agreement on all the numerous programs, governmental and otherwise, with which the medical profession of Alabama is involved. Somewhere there must be a physician who within himself cried out: "No! This way is wrong. I have a better solution."

If we are to believe the reports published in their State Journals, most other Medical Associations have lively debates on topics as far-ranging as abortion legislation and quackery.

Those in authority in the Medical Association of the State of Alabama would benefit from, and they are anxious to receive, the opinions of the county medical societies and the individual members thereof. The Trustees and Censors meet as reference committees on the day immediately preceding the Annual Session and their agendas are published fully in the Handbook for Counsellors and Delegates. Very few members have availed themselves of this opportunity to be heard in recent years.

The new President will seek to overcome this handicap with some innovations in the meeting schedule of the Board of Trustees and by making greater use of the existing mechanism. At least one meeting of the Board of Trustees will be held in each of the four divisions of the State at which time every member of the Association will be most cordially invited to attend and state his views on matters under discussion. Chairmen and members of committees residing in the areas in which the meetings are being held will also be asked to come forth to discuss their programs and outline their objectives for all to hear.

Serving immediately under authority of the President are the President-Elect and four division Vice-Presidents. Dr. McCafferty has announced his purpose to develop a program which will place the Vice-Presidents in closer relationship with the county societies within his jurisdiction. Societies with fewer than ten members will be encouraged to meet jointly at least once, and perhaps oftener, with the largest nearby county. Through establishment of multi-county operations, Dr. McCafferty hopes to bring before them outstanding scientific speakers as well as to present the latest developments in Association affairs.

As organized medicine moves inexorably into the most difficult phase of its existence it will be interesting to note whether the physicians of Alabama collectively will alert themselves to the dangers and resolve to become more than a name in the Roster. Decisions are being made today which will govern the private practice of medicine for all time to come. The new administration of this Association is merely giving those who will be affected an opportunity to help shape their own destinies.

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Average adult dosage: 2 tablets four times daily, given at least one hour before, or two hours after meals.
Contraindications: History of hypersensitivity to any component.
Warning: If renal impairment exists, even usual doses may lead to liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. Hypersensitive individuals may develop a photodynamic reaction to natural or artificial sunlight during use. Individuals with a history of photosensitivity reactions should avoid direct exposure while under treatment, which should be discontinued at first evidence of skin discomfort.
Precautions: Some individuals may experience drowsiness, anorexia, and slight gastric distress. If excessive drowsiness occurs, it may be necessary to increase the interval between doses. Persons on full dosage should not operate any vehicle. Use may result in overgrowth of nonsusceptible organisms. If infections appear during therapy, appropriate measures should be taken. Infections caused by beta-hemolytic streptococci should be treated for at least 10 full days to help prevent rheumatic fever or acute glomerulonephritis. Use of tetracycline during tooth development may cause discoloration of teeth.
Adverse Reactions: Gastrointestinal—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes (a case of exfoliative dermatitis has been reported); photosensitivity; onycholysis and discoloration of nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. In young infants, bulging fontanels following full therapeutic dosage has been reported. This has disappeared rapidly when drug was discontinued. Teeth—dental staining (yellow-brown) in children of mothers given tetracycline during the latter half of pregnancy and in children given the drug during the neonatal period, infancy, and early childhood. Enamel hypoplasia has been seen in a few children. Blood—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. Liver—cholestasis (rare), usually at high dosage. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

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350-8

PHYSICIAN PLACEMENT SERVICE IN ALABAMA

The Physician Placement Service of the Medical Association of the State of Alabama is designed to assist both physicians and communities. MASA members having knowledge of practice opportunities or wishing to relocate their own practices are urged to communicate with the Placement Service. For further information: write Mr. Emmett Wyatt, Executive Assistant, Medical Association of the State of Alabama, 19 South Jackson Street, Montgomery, Alabama 36104, or Telephone 263-6441.

Locations Wanted

Anesthesiology—

Age 37; University of Pittsburgh, 1957; seeking group or associate practice. Available October 1968. LW-334

General Practice—

Age 27; Louisiana State University 1967; seeking group or associate practice. Available August 1968. LW-335

Age 38; University of Oklahoma, 1955; seeking associate, institutional or industrial practice; in town of 10,000 plus population; interest in surgery. LW-336

Age 28; University of Tennessee, 1965; available November 1968. LW-337

Age 28; Medical College of Alabama 1966; seeking practice in town of less than 14,000 population to fulfill scholarship requirements. Available 1968. LW-338

Age 52; University of Chicago 1950; seeking group, industrial, institutional or student health position. LW-339

Age 56; Georgetown University 1938; seeking solo, group or associate practice, with general surgery. Available July 1968. LW-340

Internal Medicine—

Age 32; University of Wisconsin 1962; Board eligible; seeking associate practice. Available July 1968. LW-341

Age 34; Hahnemann Medical College 1959; Board eligible, National Board; seeking solo, group, or associate practice. Available immediately. LW-342

Age 34; University of Tennessee, 1958; American Board Certified, seeking group, industrial, or institutional practice. Available Spring 1968. LW-343

Neurology—

Age 31; Harvard 1962; Board eligible; National Board; seeking solo, group or associate practice. Available July 1969. LW-344

Age 30; Medical College of Alabama 1962; Board eligible; National Board; seeking solo, group, associate or institutional practice. Available January 1969. LW-345

Obstetrics-Gynecology—

Age 35; Vanderbilt University 1950; Board eligible; Available July 1968. LW-346

Age 37; University of Virginia 1959; Board certified; seeking group or associate practice. Available September 1968. LW-347

Age 34; University of Missouri 1959; Board certified; seeking group, industrial, associate or institutional practice. Available July 1968. LW-348

Age 36; Medical College of Alabama 1957; Board eligible; seeking group or associate practice. Available immediately. LW-348-A

Psychiatry—

Age 38; University of Florida 1961; Board certified; seeking group, associate or institutional practice. Available mid-1968. LW-349

Radiology—

Age 31; S. U. N. Y. College of Medicine, 1961; Board eligible; seeking solo, group, or associate practice. LW-350

Age 41; Cornell Univ. Medical School, 1953; Board certified; seeking group, or associate practice. Available immediately. LW-351

Age 51; Univ. of Texas Med. Branch, 1942; Board certified; seeking solo, group, or associate practice. LW-352

Surgery—

Age 33; University of Missouri, 1961; seeking group or associate practice. Available January 1969. LW-353

Age 38; Emory University, 1956; Board eligible; seeking group, associate, or institutional practice. Available July 1968. LW-354

Age 37; Faculty of Medicine, Manitoba, 1957; Board certified; seeking associate or institutional practice. Available July 1968. LW-355

Age 34; Board eligible; University of Santo Tomas, 1961; seeking group or associate practice. Available July 1968. LW-356

Age 35; Board eligible; Univ. of Santo Tomas, 1956; seeking solo, group, industrial or associate or institutional practice with general practice. Available immediately. LW-357

Student Health—

Age 43; Tulane 1949; Available immediately. LW-358

Age 41; Yale University 1951; National Board. LW-359

Physicians Wanted

General Practitioners—

For town in South Alabama with 20,000 trade area, within 40 miles of Gulf beaches and large city. Excellent hunting and fishing. Numerous industries offering stable employment for area. Furnished office available rent free. Hospital presently engaged in complete remodeling and expansion. PW-212

Unusual opportunity for two general practitioners with military obligations satisfied at a modern fifty bed facility located 15 minutes drive from largest metropolitan center in north-central Alabama. Construction of a new two-story office building is scheduled to begin soon. PW-213

Opportunity in rapidly expanding community of 10,000-12,000 population adjacent to metropolitan center in north Alabama. Office space free for six months and equipment available. Staff privileges at nearby hospitals. PW-214

For town of 3,600 population in trade area of 5,000-7,000 within 100 miles of two large cities and the Gulf Coast. 50-bed hospital located in the town. Office space available. Agricultural and expanding industrial area. Several churches and two schools. Recreational activities in the town as well as nearby—golf course, hunting and fishing. PW-215

For town of approximately 1,000 population in North-central Alabama in trade area of 12,000 population. 100-bed hospital in adjoining city. PW-216

For town of 12,500 population in trade area of 50,000 located in South Alabama. Nearest large city with population of 145,000 is 80 miles. One of the physicians died recently. Two hospitals with 140 beds. Numerous small industries; several churches and schools. Recreational activities include water sports and golf course. PW-217

For town of approximately 1,000 population in population center of 10,000 located in Southwest Alabama within 90 miles of the Gulf coast. City owned clinic is offered rent free and fully equipped. Hospitals are located in two nearby towns within 25 miles. This is principally an agricultural region, but there are military installations nearby. Numerous civic clubs, community concert series, and a country club offer recreational activities. PW-218

For town with 1,000 population in trade area of 5,000 Southeast Alabama. Nearest large city with population of 50,000 is 55 miles. New clinic available rent free. No physicians in the town. Hospitals in surrounding town within 30 miles. Several churches and schools. PW-219

Opportunity in city of 5,000 population located in Northeast Alabama in trade area of approximately 10,000 population. Office space available. One physician died recently. Hospital and nursing home in the city. PW-220

For town of 1,000 plus population in west-central Alabama in trade area of 20,000. Clinic available. Nearest city of approximately 70,000 population is located a distance of 17 miles. Farming, cattle, timber, and manufacturing plants are principal resources of the area. Churches, schools, and recreational advantages. PW-221

For solo practice in town of approximately 17,000 population located in east central Alabama. 48-bed general hospital. Arrangements available for office space. Excellent recreational advantages which include hunting, fishing and water sports. City owned airport. Numerous civic clubs. Excellent schools and churches. Expanding industrial and agricultural area. PW-222

Opportunity for one or more doctors in rapidly expanding eastern suburb of Birmingham. Attractive brick building consisting of 10 rooms and adjacent parking facilities. PW-223

Opportunity for general practitioner to join a five-man group, practicing as a partnership. Each man in the group is either specialized or semi-specialized. The practice is physically located within a 70-bed hospital. Willing to pay qualified person $36,000 for the first year, with possible partnership status in one year. Would consider a physician for locum tenens for three to six months at $2,000 per month. PW-224

Opportunity in centrally located town in North Alabama in trade area of 10,000-15,000 population. The only doctor is retiring. Housing and office space readily available. Churches and schools. Recreational advantages of nearby lakes. PW-225

Surgeon—

Opportunity for a Board eligible or Certified surgeon to practice in city of over 78,000 population in north Alabama. Equipment available. PW-226

Special Openings

Specialist in the following fields: Internal Medicine, Pediatrics, Obstetrics-Gynecology and General Practitioners. 58 bed fully accredited general hospital with 91 bed addition to be completed in July 1968. Modern new office space available. PW-227

Medical Superintendent of 225 bed tuberculosis sanatorium with a building program in Birmingham. Salary and job description negotiable. Must be able to obtain Alabama license. PW-228

Physician interested in Internal Medicine and Chest Diseases to provide general medical services in 184 bed Tuberculosis Hospital in North Alabama. References and experience data required in advance. U. S. citizens and fully licensed physicians given first choice. Others will be considered upon request. Salary open. PW-229

A Tribute To Dr. Frank Alfred Kay

On Saturday Morning, January 6, 1968, Frank Alfred Kay, M. D., one of the most valuable psychiatrists of our state, died.

Dr. Kay was a native of Birmingham, Alabama, having been born and reared there. His early education was received in the public schools of Birmingham and he attended Birmingham-Southern College. He received his M. D. degree from Emory University in Atlanta, Georgia, in 1922; interned at Hillman Hospital, Birmingham, Alabama; and joined the staff of Bryce Hospital in Tuscaloosa, Alabama, where he served from 1922 to 1945.

Dr. Kay was a tireless worker and interested in all phases of medicine. During his service at Bryce Hospital he was interested in internal medicine, surgery and for several years was the Director of the Laboratory and X-Ray Service. He was an excellent surgeon, and did much surgery on patients in Bryce Hospital and Partlow State School and Hospital, and the employees of the institutions. He was keenly interested in research; did much work on bromide intoxication; and served as special witness for the Federal Government in hearings on bromide, which hearings resulted in the removal of bromide from a number of patented medicines. He was the first in Alabama to use electro and insulin shock therapy; and among the first to use Tryparsamide for C. N. S. lues; and spinal anaesthesia in surgery. In the late 1920's and early 1930's he was interested in pellagra which at that time accounted for the admission of great numbers of people in Bryce Hospital. He later worked with Dr. Tom D. Spies and associates in the treatment of pellagra with nicotinic acid. During the last several years as a staff member at Bryce Hospital he was in charge of the acute intensive treatment service for women.

Dr. Kay resigned his position at Bryce Hospital in 1945 to enter the private practice



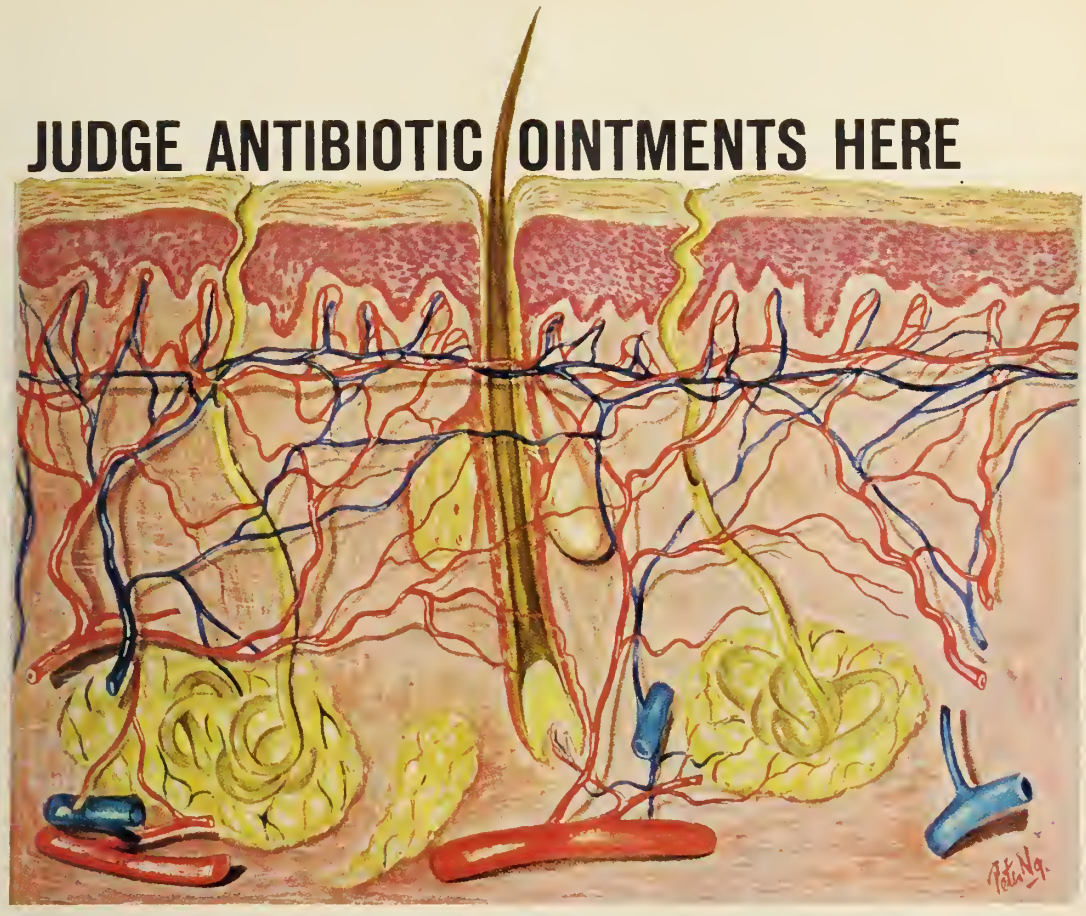
Dr. Frank Kay

of psychiatry in Birmingham, Alabama, where he started The Frank Kay Clinic. He was the first head of the Department of Psychiatry at the Medical College of Alabama, in which position he served for some time, later remaining as Associate Professor of Psychiatry.

Dr. Kay was the author of a number of scientific papers. Among his first was a paper on cholesteatoma, a special type of brain tumor, written in collaboration with Dr. George T. Pack, who at that time was a professor at the Medical School at the University of Alabama in Tuscaloosa, Alabama. In addition to scientific papers, he wrote on related subjects, one being The History of Psychiatry in Alabama, excerpt of which was published in 1961, but the full narrative had not been published at the time of his death. In 1954, he was appointed by the Governor of Alabama to head a special committee to study mental health and related problems in the state. The report of the committee was

(Continued on Page 1344)

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Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

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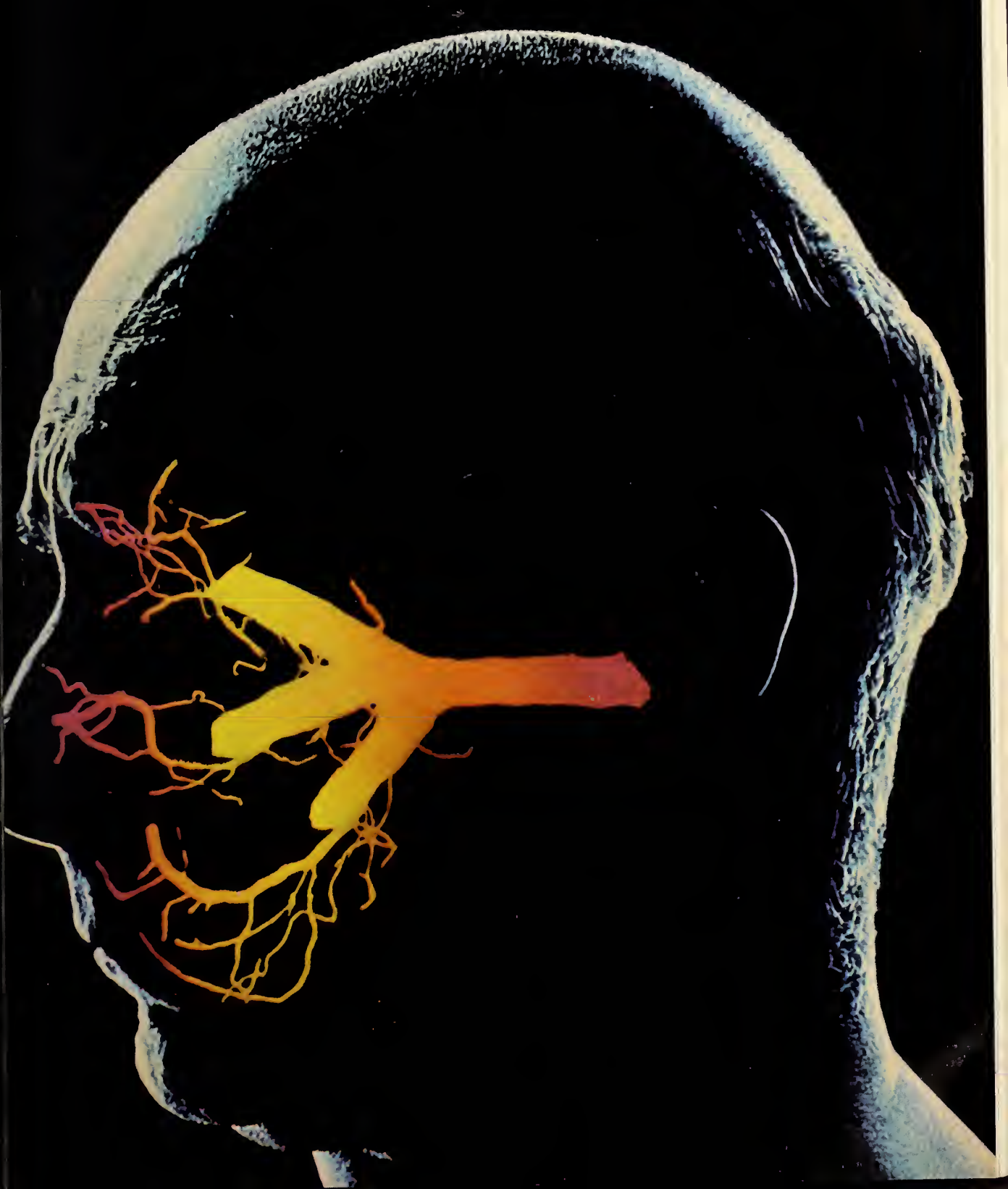
Warning
Fatal cases of aplastic anemia have been reported following treatment with Tegretol. Agranulocytosis, thrombocytopenia and transitory leukopenia have also been observed.
Complete blood and platelet counts should be done prior to and at regular intervals during treatment with the drug (see recommendations under "Important Note and Precautions") to help in the early detection of serious bone marrow injury. Abnormalities in initial blood tests should rule out use of the drug. Also, patients should be made aware of such early toxic signs of a potential hematologic problem as fever, sore throat, mouth ulcers, easy bruising and petechial or purpuric hemorrhage. Should such signs appear, the patient should be advised to discontinue the drug and to report to the physician immediately.

Indication Tegretol is indicated in the treatment of the pain associated with true trigeminal neuralgia. It is not a simple analgesic and should never be administered for relief of trivial facial aches or pains.
Contraindication Do not use in those with a known sensitivity to any tricyclic compound or in those being treated with M.A.O.I. agents. As long a period as possible should elapse before using Tegretol in patients who have been treated with M.A.O.I.'s, with a minimum of 7 days. In such cases, initial dosage should be low and the patient's reaction to gradual increments closely observed.
Important Note and Precautions Familiarity with the clinical symptoms which lead to an accurate diagnosis of true trigeminal neuralgia and with the complete prescribing information, careful patient selection, a thorough examination before treatment and close patient supervision throughout the treatment period are essential to the safe and effective use of this drug.
Where feasible, Tegretol should not be used in conjunction with any potent drug which may increase the possibility of toxic reactions.
In pregnancy, the drug should not be prescribed during the first trimester and thereafter only to patients in whom the clinical situation warrants the potential risk. It should not be administered to nursing mothers.
Patients with increased intraocular pressure should be closely observed during treatment with this drug because of its anticholinergic effect.
Because of the drug's relationship to other tricyclic compounds, the possibility of activation of latent psychosis and, in the elderly, of confusion or agitation, should be considered.
Dizziness and drowsiness may occur and patients should be cautioned about the hazards of operating machinery or automobiles and of engaging in other hazardous tasks.
Use cautiously in patients with a history of coronary artery disease, organic heart disease, congestive failure or liver disease.
Before initiating therapy, the following laboratory procedures should be performed:
1. Complete blood and platelet counts which, if abnormal, should rule out the use of the drug.
2. Baseline evaluations of liver function.
During treatment with Tegretol, the following laboratory procedures should be performed:
1. Complete blood and platelet counts should be done at intervals of one week during the first month of drug treatment, every two weeks during the second and third months, and at monthly intervals thereafter for as long as the patient is taking the drug. A trend toward a decreasing white blood cell count should suggest a dosage reduction and more frequent laboratory and clinical evaluations. Should this trend continue, the d should be discontinued.
2. Liver function tests must be performed at regular intervals during ment with this drug since liver damage may occur during therapy. Th drug should be discontinued immediately in cases of aggravated liv dysfunction or active liver disease.
3. Periodic eye examinations, including slit-lamp, funduscopy and to etry, are recommended for patients being treated with this drug sin many phenothiazines and related drugs have been shown to cause e changes.
4. Complete urinalysis and BUN should be done on patients treated Tegretol because of observed renal dysfunction.
Adverse Reactions Dizziness, drowsiness, unsteadiness on the feet, nausea, vomiting, aplastic anemia, transitory leukopenia, agranulocyt eosinophilia, leukocytosis, thrombocytopenia, purpura, abnormalities liver function tests, cholestatic and hepatocellular jaundice, urinary f quency, acute urinary retention, oliguria with elevated blood pressur albuminuria, glycosuria, elevated BUN, microscopic deposits in the u impotence, disturbances of coordination, confusion, headache, fatigu blurred vision, transient diplopia and oculomotor disturbances, spee disturbances, abnormal involuntary movements, peripheral neuritis a paresthesias, depression with agitation, talkativeness, nystagmus, tin nitus, paralysis and other symptoms of cerebral arterial insufficiency, pruritic and erythematous rashes, urticaria, Stevens-Johnson syndro photosensitivity reactions, alterations in skin pigmentation, exfoliativ dermatitis, alopecia, diaphoresis, recurrence of thrombophlebitis, er multiforme and nodosum, aggravation of disseminated lupus erythem tosus, gastric distress, abdominal pain, diarrhea, constipation, anore dryness of the mouth and pharynx, glossitis, stomatitis, fever, chills, adenopathy, lymphadenopathy, aching joints and muscles, leg cramps, conjunctivitis, left ventricular failure, aggravation of hypertension, hypo tension, syncope and collapse, edema, aggravation of coronary artery disease and congestive heart failure. (Whether these cardiovascular eff are drug-related is not known. However, some of these complications resulted in fatalities.) The necessity for discontinuing the drug should dictated by the gravity and severity of the adverse reactions.
Dosage and Administration The drug should always be taken with me if possible.
Initial: One-half tablet (100 mg.) b.i.d. on the first day. Thereafter, the should be increased in one-half tablet (100 mg.) increments every 12 until freedom from pain is achieved. To relieve pain, between 200 mg. 1200 mg. per 24 hours may be necessary.
Maintenance: Initial control of pain can be maintained in most patient with a dose of 400 mg. to 800 mg. daily. Maintenance doses may range between 200 mg. and 1200 mg. daily.
At least once every 3 months during treatment period attempts should made to discontinue the drug or to reduce the dose to the minimum effective level.
Availability Round, white, single-scored tablets of 200 mg. in bottles of 100 and 1000. (B)46-820-
For complete details, please see Prescribing Information.

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chlorthalidone 50 mg.
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when you want to provide the combined benefits of two accepted agents in the treatment of mild to moderate hypertension. (Contraindications: history of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases.)

when you want to prescribe therapy that is generally well tolerated.

(However, adverse reactions may occur. For a complete listing, please refer to the full prescribing information which is summarized below.)

when your patient wants an easy-to-remember and reasonably priced regimen. (One tablet a day usually costs about a dime.)

Indications: Hypertension. **Contraindications:** History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases. **Warning:** With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue 1 week before electroshock therapy, and if depression or peptic ulcer occurs. **Use in pregnancy:** Regroton should be used in pregnant patients or in women of childbearing potential only when, in the judgment of a physician, its use is deemed essential to the welfare of the patients; adverse reactions (thrombocytopenia, hyperbilirubinemia, altered carbohydrate metabolism, etc.) are potential problems in the newborn. **Precautions:** Antihypertensive therapy with Regroton should always be initiated cautiously in post-sympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue Regroton therapy two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, Regroton should be discontinued and potassium supplements given, provided the patient does not have marked oliguria. Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients. **Adverse Reactions:** The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible. **Average Dosage:** One tablet daily with breakfast. **Availability:** Pink, single-scored tablets in bottles of 100 and 1000. **For details, see complete Prescribing Information.** (B)46-600-B

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DR. KAY

(Continued from Page 1338)

presented for action by the state legislature during its 1955 session.

He was a Diplomate of the American Board of Psychiatry and Neurology; Fellow—American Psychiatric Association; Sigma XI; Asklepios Honor Medical Society; Fellow and President Alabama Academy of Neurology and Psychiatry; Fellow and Vice President Southern Psychiatric Association; member American Medical Association; member Medical Association of the State of Alabama; member Board of Trustees of the Alabama State Hospitals and the Partlow State School and Hospital; and member and President of The Alabama Society of Medical History.

Dr. Kay was a member of the Highland Methodist Church in Birmingham, and is survived by his wife and two married daughters. He was in every sense of the word an outstanding, patriotic, Christian gentleman—always kindly, unselfish and courteous; thoughtful of and helpful to the unfortunate—a loving and considerate husband and father.

In the death of Frank Alfred Kay the emotionally and mentally distressed lost one of their most useful friends and helpers; his professional colleagues lost one of their most able and cherished fellow physicians; and the South has lost one of its most useful citizens. The Journal extends to Mrs. Kay and the others of Dr. Kay's family sincere sympathy in their bereavement.

AMA Establishes Approval Program For Certified Laboratory Assistants

The American Medical Association's Council on Medical Education has established, in cooperation with the American Society of Clinical Pathologists, an approved program for certified laboratory assistants.

It is the ninth health occupation for which the AMA now maintains approval programs to assure that training standards acceptable to the medical profession are being met.

Before the AMA established the approval program last December, schools for certified laboratory assistants were approved only by the American Society of Clinical Pathologists.

The original certification program, aimed at providing standardized training and national certification under medical auspices, was initiated in 1963 by the ASCP and the American Society of Medical Technologists.

Upon completing an accredited 12-month course of hospital or laboratory school training and passing an examination, graduates are designated as certified laboratory assistants. To meet the increased demands for laboratory service, it is estimated that 100,000 certified laboratory assistants will be needed by 1975.

The current list of AMA-approved schools for laboratory assistants, as well as lists of other AMA-approved or accredited schools—cytotechnology, inhalation therapy technician, medical record librarian, medical record technician, medical technology, occupational therapy, physical therapy and x-ray technology—may be obtained by writing the AMA's Department of Allied Medical Professions and Services.

A six-page pamphlet, "A Career for You as a Certified Laboratory Assistant," may be obtained by writing the Secretary, Board of Certified Laboratory Assistants, 445 N. Lake Shore Drive, Chicago, Illinois 60611.



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PRECAUTIONS: Tablets should be swallowed whole to avoid staining teeth. Pyrvinium pamoate will stain most materials. Stools may be colored red.
ADVERSE REACTIONS: Nausea, vomiting, cramping, and diarrhea have been reported.

POVAN is available in suspension or tablet form. The pleasant-tasting, strawberry-flavored suspension contains the pamoate equivalent of 10 mg. of pyrvinium base per cc., in 2-oz. bottles. The sugar-coated tablets each contain the pamoate equivalent of 50 mg. of pyrvinium base, bottles of 25.

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raindications: Edema; danger of cardiac mpensation; history or symptoms of peptic ; renal, hepatic or cardiac damage; ry of drug allergy; history of blood dys- a. The drug should not be given when the nt is senile or when other potent drugs are concurrently. Large doses of Butazolidin are contraindicated in glaucoma.

ing: If coumarin-type anticoagulants are simultaneously, watch for excessive ase in prothrombin time. Instances of re bleeding have occurred. Persistent or re dyspepsia may indicate peptic ulcer; rm upper gastrointestinal x-ray diagnostic if drug is continued. Pyrazole compounds potentiate the pharmacologic action of nylurea, sulfonamide-type agents and n. Carefully observe patients receiving therapy. Use with caution in the first tri- er of pregnancy and in patients with id disease.

autions: Before prescribing, carefully t patients, avoiding those responsive to he measures as well as contraindicated nts. Obtain a detailed history and a com- physical and laboratory examination, ding a blood count. The patient should not ed recommended dosage, should be ly supervised and should be warned to ntinue the drug and report immediately r, sore throat, or mouth lesions (symp- of blood dyscrasia); sudden weight gain r retention); skin reactions; black or tarry s or other evidence of intestinal hemor- occur. Make complete blood counts at ly intervals during early therapy and at k intervals thereafter. Discontinue the immediately and institute counter- ures if the white count changes signifi- y, granulocytes decrease, or immature s appear. Use greater care in the elderly n hypertensives.

rse Reactions: The more common are ea and edema. Swelling of the ankles or may be minimized by withholding dietary eduction in dosage or use of diuretics. In ly patients and in those with hypertension rug should be discontinued with the arance of edema. The drug has been ciated with peptic ulcer and may reac- tivate a latent peptic ulcer. The patient should be instructed to take doses immediately before or after meals or with milk to minimize gastric upset. Drug rash occasionally occurs. If it does, promptly discontinue the drug. Agranulocytosis, exfoliative dermatitis, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), or a generalized allergic reaction similar to serum sickness may occur and require permanent withdrawal of medication. Agranulocytosis can occur suddenly in spite of regular, repeated normal white counts. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported. While not definitely attributable to the drug, a causal relationship cannot be excluded. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, hypersensitivity angiitis, pericarditis and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.



Dosage in Rheumatoid Arthritis: Initial: 3 to 6 capsules daily in 3 or 4 equal doses. Trial period: 1 week. Maintenance dosage should not exceed 4 capsules daily; response is often achieved with 1 or 2 capsules daily.

In selecting appropriate dosage in any specific case, consideration should be given to the patient's weight, general health, age and any other factors influencing drug response. (B)46-070-A

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BU 5463 R

$8 Million Pledged For Tobacco Research

One of medical science's most intensive investigations has gained additional scope with pledges by six tobacco companies of an additional $8 million for the American Medical Association Education and Research Foundation's inquiry into the relationship of smoking and health.

The new pledges assure support of the research program through 1973. All of the funds will be allocated by the Foundation to independent scientists conducting research in their own laboratories.

Costs of administering the grants are paid by the American Medical Association and not from contributions.

The program began in June, 1964, shortly after the *Surgeon General's Report on Smoking and Health* was issued and the then-Surgeon General, Luther Terry, M. D., called for further research into the problem. Financial support came from the nation's physicians and an initial $10 million grant from the same tobacco companies.

Since then, 104 investigators or teams of investigators have been at work on the problem in 50 institutions in the United States and five foreign countries.

The companies aiding in support of the program are American Tobacco Co., Brown & Williamson Tobacco Corp., Liggett & Myers, Inc., Lorillard Corp., Philip Morris, Inc., and R. J. Reynolds Tobacco Co.

Both the original grants from the firms and the new pledges were made without restrictions, said Gerald D. Dorman, M. D., vice-president of the Foundation. The only condition is that the money be used for research on tobacco and health, he said.

Contributed funds go directly to the Foundation, and grants are awarded by a six-member committee of scientists. The committee includes two scientists who served on the original advisory committee to the surgeon general.

"For many years," said Dr. Dorman, "the American Medical Association has repeatedly warned that smoking may be a health hazard; and this opinion has been supported by numerous other scientific organizations.

"But major questions about the problem remain unanswered by anyone—what is the exact chain of events inside the body when tobacco smoke is inhaled; which specific ills might be directly attributed to smoking; what are the elements in smoke which might create health hazards, and can these elements be minimized or eliminated?

"These are among the questions the Foundation is seeking to answer through basic research.

"This matter of the relationship of smoking and health has become an emotion-laden issue, and the Foundation feels it is very important and that all avenues of exploration be kept open. Unless you have the scientific facts and explanations, you can't make absolute judgments."

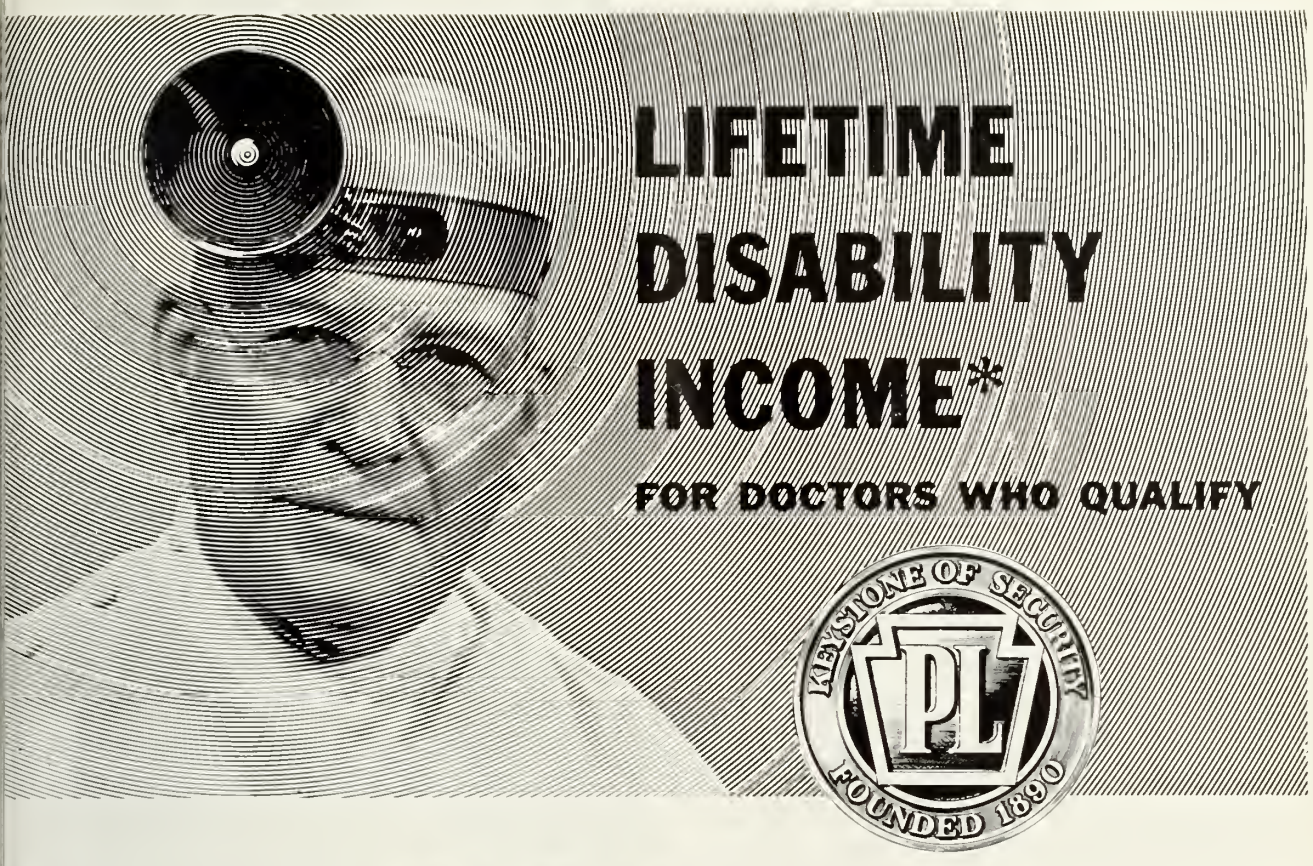
On June 19, a score of the independent scientist grantees from this nation and abroad will report their findings to date to the nation's scientific community during the AMA's Annual Convention in San Francisco. At the same time, more than 90 additional reports will be published.

Early drafts of those reports suggest several important findings. These include:

* The most compelling evidence to date that dependence on smoking as a habit is psychological in origin, not physical.

* Clinical trials which indicate that frequency of smoking can be reduced by intra-

(Continued on Page 1350)



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TOBACCO RESEARCH

(Continued from Page 1348)

venous injections of nicotine; but that two drugs widely used to help smokers quit either have no effect or may actually increase smoking frequency.

* Further evidence supporting the long-held belief that patients with heart disease increase their risk of complications by smoking.

* Extensive studies of pairs of twins, some of them smokers and some non-smokers, which indicate that genetic and environmental factors other than smoking also may play an important part in the development of angina pectoris and bronchitis.

Subjects of other reports during the symposium will range from a clinical study of the effects of cigarette smoking in women to highly sophisticated physiological and biochemical studies of the effects of smoking on tissue.

"All of these investigations, some clinical and many quite basic in nature, add significantly to the body of scientific knowledge about the effects of smoking on health," Dr. Dorman said.

"But answers to the major questions—what are the exact, scientifically documented effects of smoking on the human and his tissues; what, if anything, can be done to make smoking more safe—are still inconclusive.

"This research must be continued in the years ahead if answers are to be found."

The tobacco companies, in pledging the additional $8 million grant, endorsed this goal.

Five of the firms, Brown & Williamson Tobacco Corp., Liggett & Myers, Inc., Lorillard Corp., Philip Morris, Inc., and R. J. Reynolds Tobacco Co., pledged their support over the five years from 1969 to 1973. The sixth firm, the American Tobacco Co., currently pledged its support for the year 1969.

Members of the Foundation's scientific advisory committee for research on tobacco and health are: Maurice H. Seevers, M. D., Ph. D., chairman of the committee and chairman, Department of Pharmacology, University of Michigan Medical School; Richard J. Bing, M. D., chairman, Department of Medicine, Wayne State University; Robert J. Hasterlick, M. D., professor of medicine, University of Chicago School of Medicine; John B. Hickam, M. D., chairman, Department of Internal Medicine, Indiana University Medical Center; Paul S. Larson, Ph.D., chairman, Department of Pharmacology, Medical College of Virginia; and Paul Kotin, M. D., director, Division of Environmental Health Sciences, National Environmental Health Science Center.

Medic Alert May Save Many Patients' Lives

An incredibly simple yet effective little device—a metal emblem—could mean the difference between life or death for the patients of physicians in many specialties.

The potential silent lifeguard is the internationally recognized emblem of the Medic Alert Foundation International, a nonprofit, charitable organization headquartered in Turlock, Calif.

The amulet, worn as a bracelet or necklace, alerts doctors, nurses and other personnel attending emergency cases to the wearer's hidden or special medical problem.

On the face of the emblem are the words "Medic Alert" and the familiar snake-encircled staff of Aesculapius in bright red. The back is engraved with the wearer's Medic Alert membership number; the telephone number of Medic Alert's Central File in Turlock, which physicians and other authorized personnel may call on a collect, 24-hour

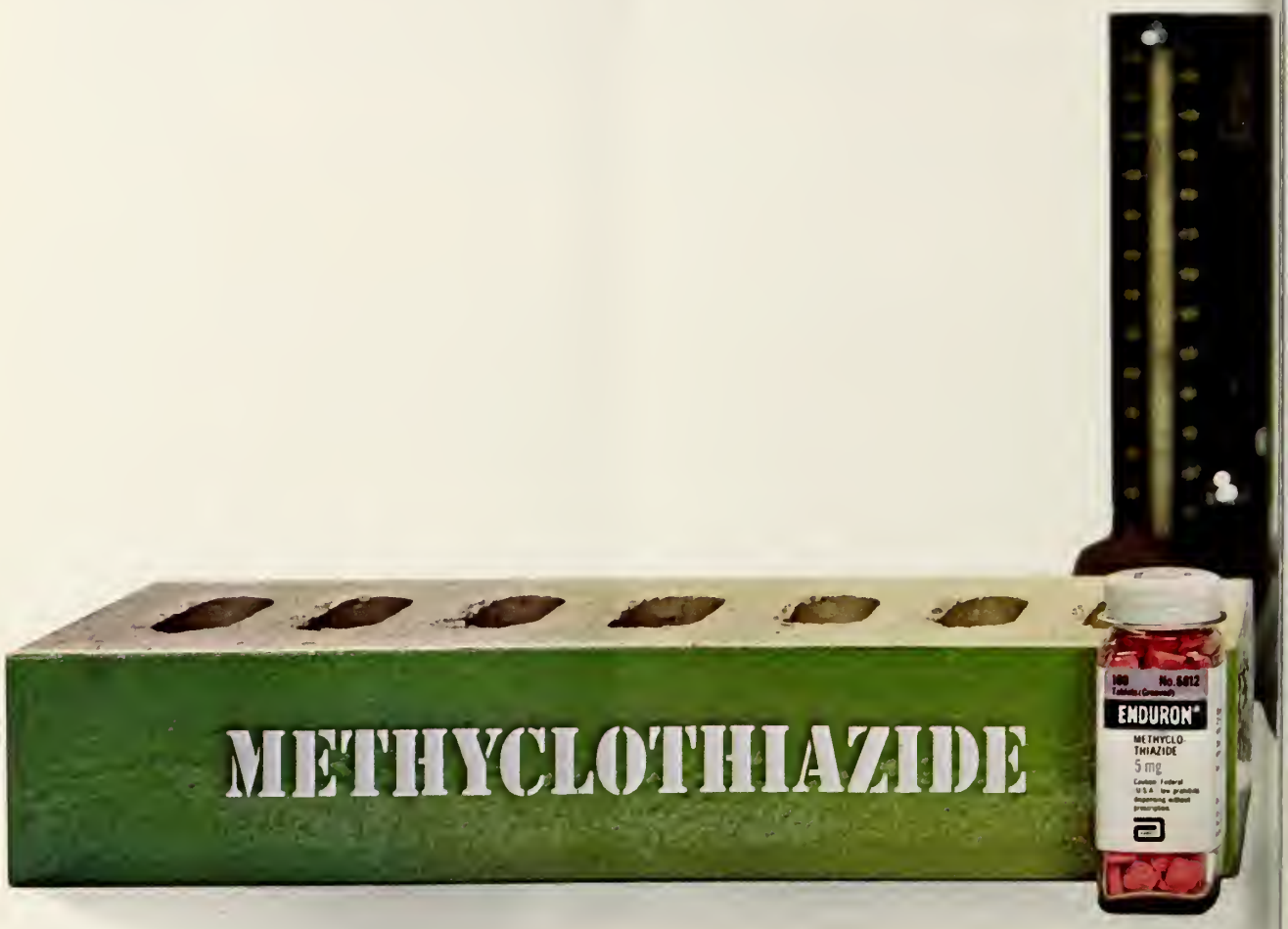
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Of course, as with all thiazides, supplemental dietary potassium should also be considered.

Use Enduron as a basic therapy in patients with mild to moderate hypertension. A single 5-mg. tablet each day is ample in most cases.

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Enduronyl: Its deserpidine component adds response in moderate hypertension



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Enduronyl is available plain or Forte. The latter provides its variation where most helpful, by doubling the deserpidine.

Use Enduronyl for patients throughout the broad range of mild to moderately severe hypertension.

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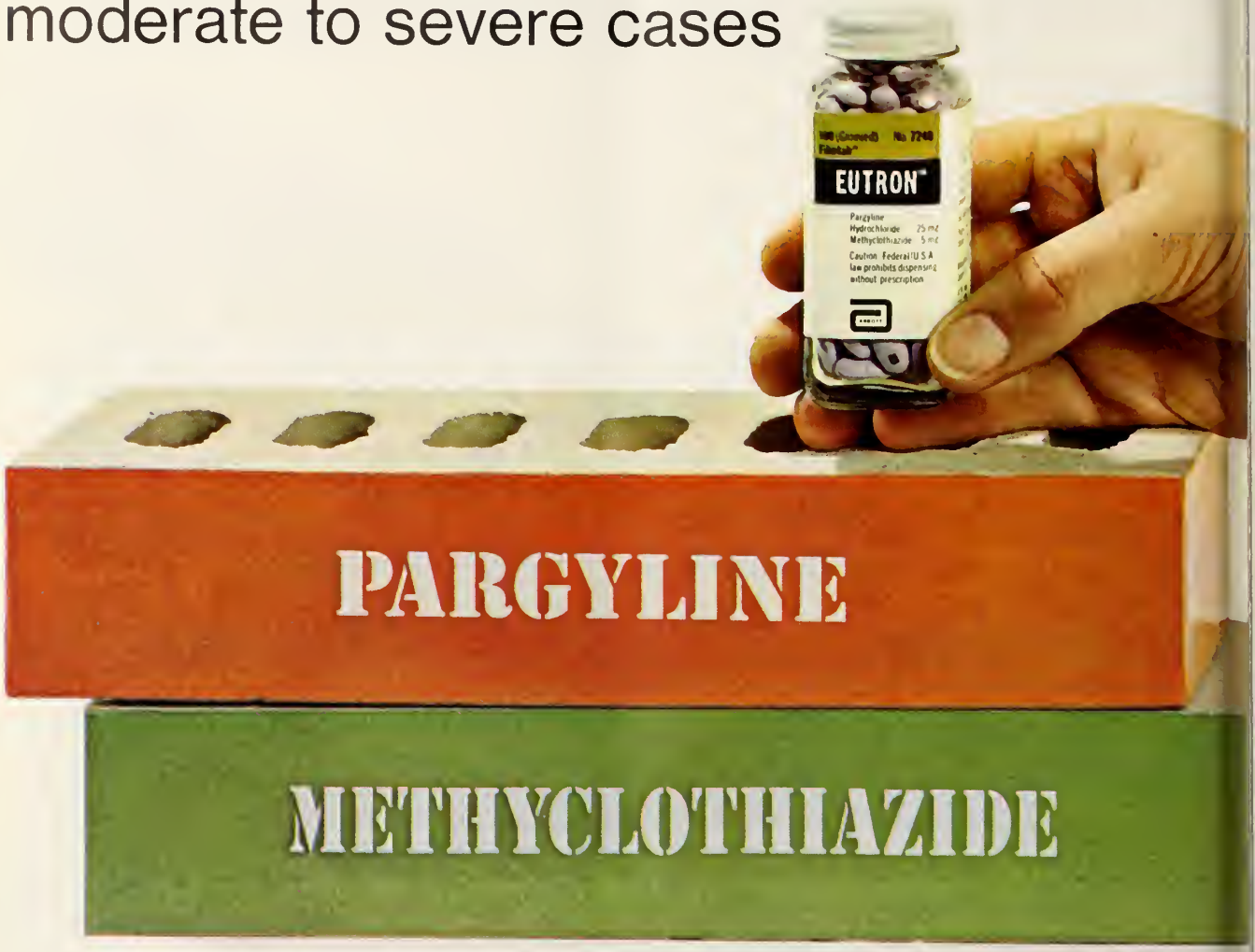
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Thus, in clinical trials, average *standing* diastolic readings were reduced from 112 pre-treatment to 90 post-treatment; *sitting* from 115 to 95; and *recumbent* from 112 to 94.

Note that following Eutron, the diastolic reductions were nearly alike in all three body positions.

Use Eutron for managing your moderate to severe cases. Its building blocks enhance each other; hence lesser doses often suffice.

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MILD TO MODERATE TO SEVERE



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METHYCLOTHIAZIDE

Each tablet contains Methyclothiazide 5 mg. with Deserpidine 0.25 mg. or 0.5 mg.

Indications: Edema and mild to moderate hypertension (Enduron), and mild to moderately severe hypertension (Enduronyl). More potent agents, if added, can be given at reduced dosage.

Contraindications: Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease or impending hepatic coma (hepatic coma due to hypokalemia has been reported in patients on thiazides). Do not use Enduronyl in severe mental depression, suicidal tendencies, active peptic ulcer, or ulcerative colitis.

Warnings: Consider possible sensitivity where there is history of allergy or asthma. If added potassium is indicated, dietary supplementation is recommended. Reserve enteric-coated potassium tablets for cautious use only when necessary, as they may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation often requiring surgery; discontinue them immediately if abdominal pain, distention, nausea, vomiting, or g.i. bleeding occurs. Neither Enduron nor Enduronyl contains added potassium.

Precautions: Use thiazides cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery, thiazides may reduce response to vasopressors, and increase response to tubocurarine. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia) in all patients. In hypokalemia (especially in digitalized patients) give supplemental potassium. In hypochloremic alkalosis, give supplemental chloride.

Use rauwolfias with caution in patients with history of peptic ulcer. Rauwolfias with anesthetics may produce hypotension and bradycardia. Discontinue Enduronyl two weeks before elective surgery. Consider vagal blocking agents during emergency surgery. In epilepsy, adjust anticonvulsant dosage. In electroshock, shorten stimulus strength and duration. In occasional patients with depressive tendencies, rauwolfias may precipitate severe mental depression that usually disappears when drug is stopped.

Adverse Reactions: Thiazide reaction include blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, serum uric acid or blood sugar; anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, symtomatic gout, and pancreatitis. Cutaneous vasculitis in the elderly has been reported with other thiazides. Adverse effects with deserpidine are qualitatively similar to those with reserpine, but their incidence is lower. These include nasal stuffiness, abdominal cramps or diarrhea, nausea, headache, weight gain, reduced libido and potency, peptic ulcer aggravation, epistaxis, skin eruption, asthma in susceptible patients, electrolyte imbalance, excessive salivation, and a reversible Parkinson's syndrome. Excessive drowsiness, fatigue, weakness, and nightmares may signal mental depression. Thrombocytopenia, purpura, and a symptom manifested by dull sensorium, deafness, uveitis, glaucoma, and optic atrophy are rare allergic reactions to other rauwolfias. Hypotension from antihypertensive agents may precipitate angina attacks in susceptible individuals. Usually adverse reactions disappear when drug is withdrawn.

EUTRON™

Each tablet contains Pargyline Hydrochloride 25 mg. with Methyclothiazide 5 mg.

Indications—Moderate to severe hypertension.

Contraindications—Pheochromocytoma, paranoid schizophrenia, hyperthyroidism and advanced renal failure. Not recommended in malignant hypertension, children under 12, pregnant patients.

Do not use with: centrally or peripherally acting sympathomimetic drugs; foods high in tyramine (e.g., aged and natural cheeses); parenteral reserpine or guanethidine; imipramine, amitriptyline, desipramine, nortriptyline or their analogues; other monoamine oxidase inhibitors; methyldopa or dopamine; separate Eutron and these agents by two weeks.

Sensitivity to thiazides; severe renal disease (except nephrosis) or shutdown; severe hepatic disease; impending hepatic coma from thiazide-induced hypokalemia.

Warnings—Patients: 1. No other drugs (particularly "cold preparations" and antihistamines), cheese or alcohol without physician's consent. 2. Promptly report orthostatic symptoms, severe headache, other unusual symptoms. 3. Angina pectoris or coronary artery disease patients must not increase physical activity with improved anginal symptoms or well-being.

Physicians: 1. Use antihistamines, hypnotics, sedatives, tranquilizers and narcotics (meperidine contraindicated) cautiously in reduced doses. 2. Stop Eutron two or more weeks before elective surgery; in emergency surgery reduce premedication (narcotics, sedatives, analgesics, etc.) to 1/4 to 1/5; carefully adjust anesthetic dosage to patient response. 3. Use cautiously in advanced renal failure. 4. Pargyline may induce hypoglycemia. 5. Consider possible sensitivity reactions when a history of allergy or asthma is present. 6. If potassium is indicated, dietary supplement is recommended; enteric-coated potassium tablets may induce serious or fatal small bowel lesions (stenosis with or without ulceration), cause obstruction, hemorrhage, and perforation frequently requiring surgery; discontinue medication immediately if abdominal pain, distention, nausea, vomiting or gastrointestinal bleeding occurs; Eutron does not contain added potassium. 7. Possible systemic lupus erythematosus has been reported for thiazides.

Precautions—Pargyline: Use cautiously at reduced dosage; caffeine, alcohol, antihistamines, barbiturates, chloral hydrate, other hypnotics, sedatives, tranquilizers, narcotics. Periodically do urinalyses, blood counts, liver function tests, etc. Use with caution in liver disease. Watch for orthostatic hypotension, especially in impaired circulation (e.g., angina pectoris, coronary artery disease, cerebral arteriosclerosis); also, augmented hypotension in concomitant febrile illnesses. Reduce or discontinue if hypotension is severe. In impaired renal function watch for cumulative drug effects, elevated BUN and other evidence of progressive renal failure; withdraw drug if these persist. In surgery increased central depressant response (hypotension and increased sedative effect) can be controlled by (1) discontinuing at least two weeks prior; (2) in emergency surgery lowering dose of premedication; (3) when necessary, administering a vasopressor. Do not use in hyperactive and hyperexcitable patients. Pargyline may unmask severe psychotic symptoms where emotional problems pre-exist. Use cautiously in Parkinsonism, especially with antiparkinsonian agents. In prolonged therapy, examine for change in color perception, visual fields, fundi and visual acuity. Also, prolonged therapy has made certain patients refractory to nerve blocking effects of local anesthetics.

Methyclothiazide: Use cautiously in severe renal dysfunction, impaired hepatic function or progressive liver disease; also in pregnancy (bone marrow depression, thrombocytopenia, and altered carbohydrate metabolism have been reported in certain newborn). In surgery thiazide may reduce vasopressor response and increase tubocurarine response. Antihypertensive response may be enhanced following sympathectomy. Watch for electrolyte imbalance (e.g., hyponatremia). Give supplemental chloride if hypochloremic alkalosis occurs and supplemental potassium if hypokalemia occurs (especially in digitalized patients). Thiazides may decrease serum P.B.I. without signs of thyroid disturbance.

Adverse Reactions — Pargyline: Orthostatic hypotension and associated symptoms, mild constipation, fluid retention, edema, dry mouth, sweating, increased appetite, arthralgia, nausea, vomiting, headache, insomnia, difficult in micturition, nightmares, impotence, delayed ejaculation, rash, purpura, weight gain, hyperexcitability, increased neuromuscular activity and other extrapyramidal symptoms. Drug fever is extremely rare. Reduction in blood sugar and hypoglycemic effects are possible. Congestive heart failure has been reported in a few patients with reduced cardiac reserve.

Methyclothiazide: Blood dyscrasias (thrombocytopenia with purpura, agranulocytosis, aplastic anemia); elevation of BUN, blood sugar or serum uric acid (gout may be induced); anorexia, nausea, vomiting, diarrhea, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice and pancreatitis. Cutaneous vasculitis in elderly patients has been reported with other thiazides.

If side effects are severe or persist, reduce dosage or withdraw drug. 804438R

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MEDIC ALERT

(Continued from Page 1350)

basis; and a warning, such as "Allergic to penicillin."

Medic Alert is dedicated to preventing inadvertent medical ministrations that could have fatal effects, according to Chester L. Watts, executive director of the Foundation.

Watts pointed out that if emergency personnel are forewarned about an existing medical condition, they can do a more intelligent, successful job for the patient.

Very often when a patient is rushed to a hospital emergency ward suffering from multiple traumatic injuries, there is little time to do anything but the expedient. The bleeding must be stopped and infection prevented. Allergies, hypersensitivities or other special conditions could easily be overlooked.

But if a patient has an allergy to penicillin or a hypersensitivity to other drugs, a dose intended to cure could kill.

If the patient has a cardiovascular disorder he may be taking anticoagulants which must be counteracted by the administration of other drugs. Inadvertent failure to take the right steps could prove fatal.

More obviously, diabetics and epileptics should wear the protective Medic Alert insignia. Persons with these afflictions can easily—and often are—mistaken as drunk and end up in the local jail with tragic results.

Medic Alert was born because a little girl almost died. About a dozen years ago in Turlock, 14-year old Linda Collins cut her finger on a rifle trigger.

At the hospital where she was taken, she was given a routine scratch test for tetanus antitoxin. She fell writhing to the floor, the victim of a severe anaphylactic reaction to the serum. She recovered after three days in an oxygen tent.

Her father, Marion C. Collins, M. D., F. A. C. S., a local surgeon, realizing that a second such accident could be fatal, designed the Medic Alert emblem.

Knowing that millions of others, like Linda, had hidden medical problems needing special attention in emergencies, he established Medic Alert Foundation.

Today, more than 200,000 Americans wear the protective Medic Alert medallion, and the Foundation receives more than 2,500 new enrollments every month.

Medic Alert has affiliates in 11 foreign countries and has been endorsed by a large number of county and state medical societies and by many national organizations, including the American Academy of General Practice, the American College of Allergists and the American Academy of Allergy.

A potentially dangerous hidden medical problem is by no means uncommon or "abnormal," as patients themselves sometimes think. There is a natural tendency to conceal one's handicaps for all kinds of human reasons.

Such patients must be persuaded of the wisdom of wearing protective identification. It is important to emphasize to the patient with hidden or special problems that he will not be able to communicate to those in attendance if he suffers shock delirium, unconsciousness or coma.

There are more than 200 known reasons for wearing emergency medical identification and these are seen in nearly every medical specialty. If one of your patients has a medical problem that would place him in jeopardy in an emergency, he should be advised to mear the Medic Alert emblem.

The physician has merely to recommend enrollment in Medic Alert. No prescription is necessary and there is no paper work incumbent upon the doctor. Medic Alert will supply physicians, free of charge, attractive canisters containing membership application

blanks by writing Medic Alert, Turlock, Calif. 95380.

A membership, including an emblem, a medical wallet card and round-the-clock information service, is available for a lifetime membership fee of $7, or free to the needy.

Policies of the foundation are established by a Board of Directors and a Medical Advisory Committee comprised of physicians from all specialties and residing in all sections of the country.

The "Diet Pill" Scandal

Diet pills, their effects on health, and treatment of the obese have attracted widespread attention across the country recently. While the Food and Drug Administration attacked the manufacturers of weight-reducing pills, Congress listened to hearings on the ethical and legal aspects of physicians and osteopaths who specialize in the treatment of the obese.

As the representative of the medical profession, the AMA was invited to testify before Congress. The testimony reiterated the policy adopted by the AMA House of Delegates last June.

It stated that, "There is no ethical nor legal ruling which would prevent a physician from limiting his practice to the treatment of obesity but this is not a recognized specialty. Since obesity may be only a sign, many disciplines of medicine may be involved in proper treatment."

While the practice of weight-control is ethical and proper, the misuse of medical procedures or the failure to render acceptable medical care to individual patients is to be condemned.

Medical societies have an obligation to protect the people in their community from physicians who are not practicing medicine's high standards.

The AMA's Law Division agrees that medical societies might very properly review the practices of some physicians who deal primarily or exclusively in the area of weight-control. If physicians engaged in that type of practice are not taking adequate histories, not conducting adequate physical examinations, are over-prescribing, or are prescribing medications which have not been found to be safe and efficacious, then they are guilty of unethical conduct and very probably guilty of malpractice as well.

However, the medical society would have to prepare its case thoroughly and clearly state before the Ethics Committee the practice such a physician followed.

Testimony as to the practice followed could be received from patients. For example, a patient might state that she had not received a physical examination and had been given a prescription for five hundred pills.

Next, physicians would have to justify before the Ethics Committee that the accepted practice in the community was of a different nature. They would also be asked to give their opinion on why the practice described by the patient was contrary to sound medical judgment.

In other words, medical expert witnesses would have to establish the standard of care in the community and further establish that the type of care under consideration was, in the opinion of the medical community, harmful or impossible of accomplishing good from the medical point of view.

According to the AMA's Law Division, it is not as difficult as it would appear to review the practice of some physicians. However, medical societies must prepare "their cases" in advance of any hearing if they expect to establish unethical conduct.

The Law Division suggests that, in all probability, a charge could be brought under Section 1, Section 3, or Section 6 of the Principles of Medical Ethics.

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Volume 37 June, 1968 No. 12

Electronystagmography: An Aid To Diagnosis in the Dizzy Patient

E. W. Stevenson, M. D., FACS*

Birmingham, Alabama

Introduction

The average physician in active practice is frequently confronted with the patient with the subjective complaint of dizziness. All too often, the history, the physical examination including neurological, the blood pressure and the basic laboratory studies reveal no particular objective abnormality. In such cases, a diagnosis of "Inner Ear Trouble" will be given the patient; and the drug currently in vogue, or currently being mentioned prominently in "Dr. Alverez" or the Ladies' magazines, will be prescribed. Fortunately, most patients respond well to this, since many people suffering from symptoms they describe as "dizziness" have a strong psychosomatic overlay; and they respond well to the actual or implied assurance that they do not have a brain tumor or other serious disease. A lesser number do not respond to these measures, however, and they become more disturbed than ever. This second group will reach the neurologist, neurosurgeon or otolaryngologist, either by referral or on their own initiative, seeking an answer to the questions of what is causing their symptoms and why they are not responding to the treatment they have already received for "inner ear trouble." This group, then, has had an iatrogenic component added to their psychogenic and/or pathologic problem.

In the past, the Otolaryngologist's approach to this problem has been to assure himself first that problems such as hypertension, anemia, diabetes or other general disease do not exist, and then to proceed into a methodical evaluation of the "inner ear." This includes a neurological evaluation. Specific evaluation of the ear must include, in addition to thorough physical evaluation of all visible components of these structures, various tests of the specific functions and pathologic manifestations of the semicircular canals, the utricle and saccule, and the cochlea.

Tests for cochlear function have reached a high degree of sophistication in recent years. Although much practical information relative to cochlear function may be gained by very simple tests such as spoken and whispered voice and tuning forks, the advent of

*Clinical Assistant Professor, Otolaryngology Section, Dept. of Surgery, Univ. of Ala. Medical School.

the electronic pure tone audiometer and some of its more elaborate related instruments such as the Bekesy continuous-tone audiometer have helped greatly to revolutionize otologic surgery and medicine during the past three decades. Many new tests and parameters of measurement have evolved from these basic instruments, and much new knowledge continues to accrue.

This degree of progress has not occurred, however, in the testing and treatment of problems related to the vestibular portion of the inner ear. Because of the inability to test this delicate structure minutely, it has lent itself admirably to the role of recipient of the trashbasket diagnosis. It has likewise been the victim of many and varied treatment methods and potions because there was so little one could do in the realm of objective scientific evaluation to prove or disprove their validity. Certainly the Romberg test, the various well known cerebellar tests, observation of nystagmus, caloric and rotary tests and positional nystagmus tests are very gross and inexact testing methods for the delicately balanced function of this very small and delicately constructed organ complex.

It is with these thoughts as background that the subject of electronystagmography is approached. This instrument now adds a dimension to vestibular testing that is comparable in many ways to the advent of the audiometer in cochlear testing. It does not give a diagnosis, but it adds valuable information to the existing clinical tests for labyrinthine function and malfunction. One of its more valuable contributions in the present early state of the art is to answer the question in many otherwise unanswerable situations as to whether vestibular dysfunction does indeed exist, or probably does not exist, in the complaining patient. In some of the borderline dizzy patients, answering this fundamental but elusive question can be of inestimable value in one's subsequent approach to further investigation or therapy.

Physiologic and Mechanical Principles

The basic and paramount principle involved in Electronystagmography deals with the phenomenon of nystagmus itself. This principle is the ability of the eye to compensate and override nystagmus by fixation on visual stimuli. This means that a significant degree of nystagmus will *not* be present with the eyes open in a lighted situation. This nystagmus will occur, however, with the eyes closed or with total darkness. Vertigo of significant degree to give the patient a legitimate complaint, but not detectable by visual examination even with the ophthalmoscope due to its total absence with the eyes open, will be manifest with the eyes closed and is detectable and measurable with the electronystagmograph. Philipszoon[1] reported a study of 341 patients complaining of vertigo in which 230 were demonstrated by ENG (Electronystagmography) to have spontaneous or positional nystagmus, while only 52 of these patients had detectable nystagmus without ENG.

The mechanics involved is based upon the fact that the eyeball is electrically charged, the cornea being positive and the retina negative[2]. By attaching suitable electrodes laterally to the outer canthus, with a neutral elec-

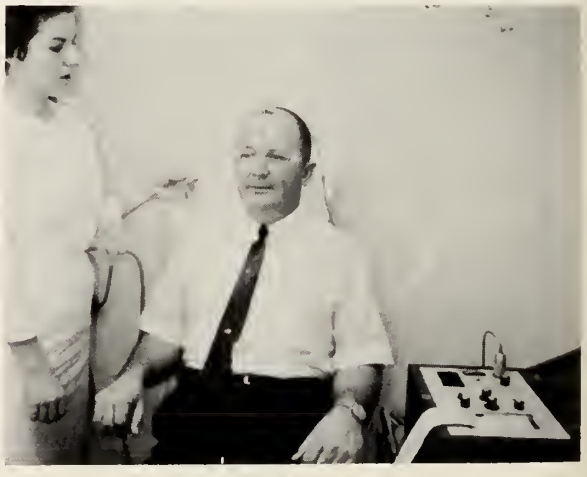


Figure 1

Electronystagmograph connected to patient by electrodes, with technician preparing to introduce water into ear canal for caloric test.

trode between the eyes (Fig. 1 and 2), a galvanometer will be deflected in response to horizontal eye movements. Vertical eye movements can be recorded by placing the electrodes above and below the eyeball. The recording instrument itself is a modification of the Electrocardiograph and the Electroencephalograph machines (Fig. 3).

The tracing made by nystagmus movements of the eye is similar to a saw-tooth, since the quick component will result in a more vertical slope on the graph and the slow component will record as an incline (Fig. 4).



Figure 2

Position of Electrodes attached to outer canthus and indifferent electrode between eyes, ready for testing.

Past, Present and Future

As pointed out by Smith[3], even though electronystagmography was first described by Schott in 1922, the technique is still in its infancy. The pioneers in its use have been Aschan and his co-workers in Scandanavia[4, 5, 6, 7]; Jongkees and Philipszoon and their co-workers in Holland[8, 9, 10], Cawthorne, Fitzgerald and Hallpike in England[11, 12], and Rub'n and Norris in the United States[13, 14, 15]. The initial use by most of these investigators was as a laboratory tool, and as an aid in the evaluation of the effects of various drugs upon the labyrinth. With accumulation of knowledge by these workers, combined with refinements and availability of the apparatus for office use, ENG is evolving into a useful clinical tool. At the present state of develop-

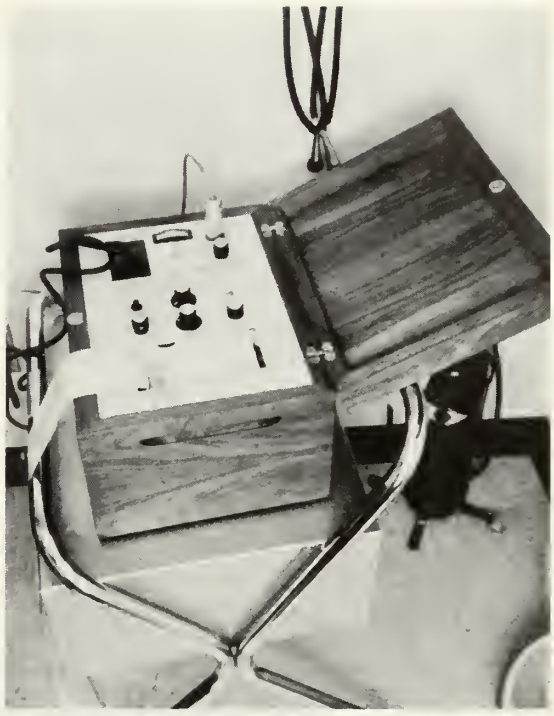
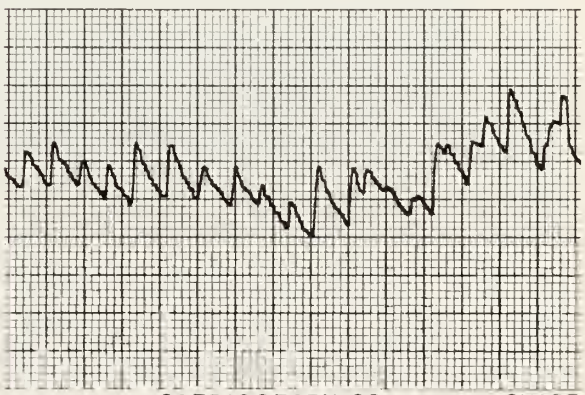


Figure 3

Office model of Clinical Electronystagmograph unit, (ENG).



ment, the following practical uses are listed by Rubin and Norris[14]:

"1. Its utilization directs the attention of the otolaryngologist to the vestibular system and kindles his interest in performing more than a cursory evaluation of the equilibratory system.

2. Electronystagmography records make it possible to follow a patient's vestibular progress over a period of time and to compare objective test results.

3. Electronystagmography recordings of spontaneous and positional phenomena uncover significant nystagmus that would be missed without the utilization of this technique.

4. Recordings of the Hallpike differential caloric when correlated with positional tests will suggest one of three distinct diagnostic possibilities:

a. The vestibular system functions normally.

b. One or the other labyrinthine end organ is diseased.

c. The vestibular system is functioning in an uncoordinated way because of pathology more central than the end organ."

At this stage, the world authorities are attempting to arrive at uniform nomenclature and are attempting to establish useful and significant measurements. Just as the Electrocardiogram and the Electroencephalogram have passed through these stages to reach their present state of sophistication, so the Electronystagmogram must evolve and come of age in the crucibles of time and experience. The promise for the future would indicate that ENG will become an integral part of the diagnostic evaluation of the dizzy patient, and will be expected and valued by all of the medical and surgical disciplines who must deal with these numerous and often baffling cases. Just as we progressed from the tuning fork to the electronic audiometer in testing the hearing function of the inner ear, so we are now progressing from the caloric, rotary and visual tests to the electronic evaluation of the balance components of the inner ear.

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Domestic Eradication of Syphilis in Alabama

W. H. Y. Smith, M. D., C. M.**
John J. Hill, B. A.
Montgomery, Alabama

It is felt and strongly believed that domestic eradication of syphilis in Alabama is achievable in the next few years. There are several sound reasons to prove Alabama is well on the road to eradication.

In order to move in this direction, the continuing all out effort to locate, bring to treatment, and apply epidemiology at a very rapid pace to all infectious syphilis cases must be available. This will result in a decrease in any existing reservoir. Alabama reached this peak in 1965 when there were more primary and secondary syphilis cases (1,438) reported than in 16 years. It was also the largest number of total cases (2,267) reported in 13 years.

At that point it was decided that it was the time to shovel on the coal and not to let up on the throttle. Everything that had been accomplished in 1965 would be reversed if acceleration of control was stopped, yet by this increased effort Alabama became in 1966 number one in the Nation for primary and secondary syphilis case rate.

With such a big drain on the reservoir in 1965 it was expected that the following years would show a decrease of cases. This is exactly what occurred during 1966 and 1967 (see Table I). The 1,292 total syphilis cases reported in Alabama in 1967 represents two less than the all time low in 1958. With Alabama having two consecutive annual syphilis decreases of over 24 per cent each year it is with a feeling of assurance that the program is on the right road to eradication. There is an atmosphere of confidence in Alabama that the decrease that has occurred is a very realistic one.

**Dr. Smith is Director of Bureau Preventable Diseases. Mr. Hill is Director of Venereal Disease Public Health Representatives.

The factors behind this confident feeling are evident when a comparison is made between the control program Alabama had in the late fifties and early sixties with that of today. It is a program that has been completely overhauled, revitalized, and revolutionized, and has brought about better control of epidemiologic procedures that are being carried out in the State. The ground work was laid when the record system was completely overhauled to adapt to rapid epidemiology. A system was established to evaluate the total program as well as the individual worker.

There were only four workers who were on the staff prior to 1963. The morale now and worker effectiveness is very high and there has been extremely low staff attrition. Each staff member is aware and confident of the support and backing. In the last three years only one worker resigned because of lack of interest. With high morale and outstanding leadership in Alabama's program there has been a staff increase four times in size since 1964.

The effectiveness, that epidemiologic techniques have played a big role in achievement toward eradication, is evident. All cases

Table I
Alabama Department of Public Health
Venereal Disease Program

Alabama Syphilis Morbidity
1965 - 1966 - 1967

	1965	1966	1967	Per Cent of Decrease 1965-1966	Per Cent of Decrease 1966-1967	Per Cent of Decrease 1965-1967
Primary	720	565	419	21.5%	25.8%	41.8%
Secondary	707	673	482	4.8%	28.4%	31.8%
Total Syphilis	2,267	1,703	1,292	24.8%	24.2%	43.0%

Table II
Alabama Department of Public Health
Venereal Disease Program

Epidemiologic Treatment In Alabama

Type of Epidemiology	Calendar Year 1967		July-December 1967		December 1967		January 1968		February 1968	
	Number Available	% Pros Rx	Number Available	% Pros Rx	Number Available	% Pros Rx	Number Available	% Pros Rx	Number Available	% Pros Rx
Primary & Secondary Contacts	2,262	78%	954	85%	95	95%	200	99%	145	100%
Classified Clusters S-2, S-5 & A-2	1,190	76%	600	78%	47	98%	128	99%	22	100%
Early Latent Contacts	388	73%	194	76%	19	89%	22	95%	95	100%

diagnosed infectious are interviewed, re-interviewed and clustered. Each case is interviewed for contacts, and suspects, the latter are those whom the patient feels has sores or a rash like he has. The uninfected contacts are interviewed for clusters and these are those whom the patient knows or believed has had intercourse with a known infectious case. Clustering is compared to a bunch of grapes since all the grapes in the bunch, where a bad one is, are examined and treated and the others examined and treated if there is the potential of being a case. Prior to 1964 attempts to interview reported infectious cases was put forth but not until after that period were cases re-interviewed and clustered. Today more than ever before, exploitation is being performed on all infectious syphilis cases in Alabama. This is another rule for measuring a positive decrease. The number of cases brought to treatment through the cluster process has increased greatly over the last four years. In 1965 less than six per cent of the primary and secondary syphilis morbidity was found through clusters. The next year it increased to above nine per cent and in 1967, 13 per cent was accomplished. In the first three months of 1968 cases brought to treatment from clustering reached the twenty per cent level.

Like the per cent of cases brought to treatment from clustering the number of clusters named has increased accordingly. In 1965 the cluster index was less than one, in 1966 it was increased to just over one, it was improved to a little above three in 1967. For the first three months of 1968, the index was 6.40.

With the addition of epidemiologic techniques came the adoption of the RPR card test into the process. This provides a rapid reading of the patient's STS and accelerated the diagnosis to a single clinic session. Alabama now is utilizing the RPR* card test in all of its clinics.

The realization of the need to increase the percentage of patients given prophylactic treatment has helped close the gap to eradication. There has been a steady increase in this percentage in the last four years. In periods prior to 1965 the percentage of prophylactic treatment was never much above 40 per cent. During 1967, by hard work the per cent of persons given prophylactic treatment was increased. Emphasis was stressed in three groups. The top priority group being primary and secondary syphilis contacts, second were suspects and associates and third, early latent contacts. In these three groups needing prophylactic treatment in 1967, 78 per cent of primary and secondary contacts, 76 per cent of suspects and associates, and 73 per cent of early latent contacts were treated. Even more impressive were the percentages in December when 95 per cent of primary and secondary contacts, 98 per cent of classified clusters, and 89 per cent of early latent contacts were given prophylactic treatment (see Table II). For January 1968 the percentage was 99 per cent for primary and secondary contacts, 99 per cent for clusters

*Rapid Plasma Reagin, a five minute test for syphilis.

and 95 per cent for early latent contacts. For February it was 100 per cent in all three categories. The objective will be to maintain prophylactic treatment at the 100 per cent level and thereby eliminate another case of syphilis. It just takes one case or one missed contact to start an epidemic.

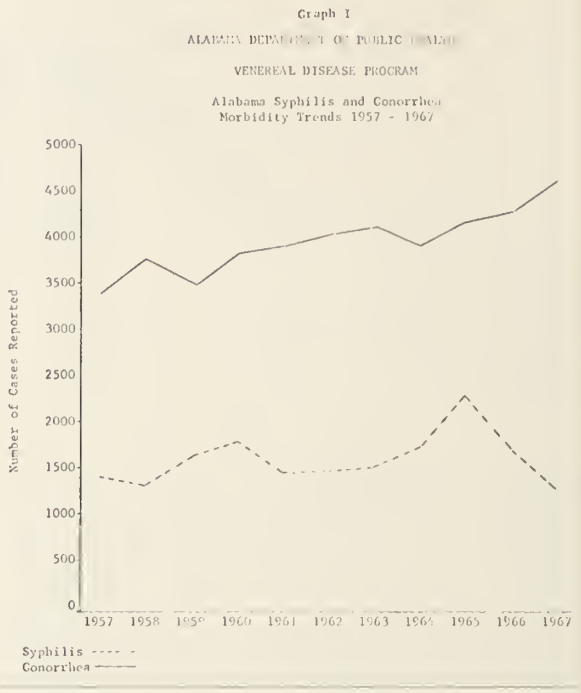
All the epidemiologic processes have been developed or improved since the "Blitz" operation began. The epidemiologic tools of the "Blitz" have been sharpened to a very keen edge and each worker had carried them back to his assigned area. These procedures have been installed into many local VD Programs.

"Blitzing" in Alabama has brought very rapid epidemiology to the State. Time studies on four categories of epidemiology performed July through December, 1967 showed an average of 4.6 days to get 1,442 primary and secondary contacts examined once they were assigned to the worker. There were 1,845 clusters examined in only 3.3 average days after they were assigned. In the same respect it took 4.5 average days to examine 285 early latent contacts and 1,886 reactive blood tests had a satisfactory disposition in an average 7.3 days. Time factors that are being accomplished today have come a long way since 1965 when the staff was spread so thin and the case load was so large that it was impossible to apply epidemiology to all patients on an hour to hour or day to day basis as is done now.

When considering the reactive blood test program, there is today a very positive indication that a large slice has been cut from the reservoir of syphilis. In 1966, 695,989 bloods processed, the yield was 4.7 when only 32,114 were found reactive. But in 1967 there were 789,989 bloods processed and the yield was 28,421 or 3.6 per cent.

There is no question that the passage of a law in September, 1967 requiring laboratories to report all reactive or positive tests for syphilis has and will strengthen the efforts to achieve domestic eradication of syphilis.

Another area to consider, in a survey to compare syphilis and gonorrhea morbidity



trends, is very clear in Graph I how gonorrhea has continued to increase while syphilis has begun a *descent* in the last two years.

The fact that less syphilis information is being exchanged between Alabama and other areas; the fact that Alabama's VD Education Program has made progress, even though there is room for improvement; the fact that the per cent of private physician cases reported has not decreased, and many other factors all lead up to a very strong indication that Alabama is on the road to domestic eradication.

The VD staff through hard and continued work has tried to show what syphilis eradication is all about and the great distance that has been travelled toward this but to repeat, it only takes one case or a missed contact to start an epidemic all over again. Every effort will be expended to look very hard and find that last infection and this can be done.

Alabama's progress to reduce primary and secondary syphilis as compared to other states looks impressive. According to provisional data furnished by the National Venereal Disease Program, Alabama is one of 29 states reflecting a reduction in reported primary and secondary cases in 1967. In Table III it will be noted, Alabama ranks

Table III

Alabama Department of Public Health
Venereal Disease Program

Per cent Decrease Among States Reporting
Over 500 P & S Syphilis Cases
1966-1967

States	1966	1967	Per Cent of Decrease
Alabama	1,233	882	28.5%
New Jersey	714	602	15.7%
South Carolina	875	777	11.2%
New York	2,695	2,394	11.1%
North Carolina	839	747	11.0%
Illinois	1,209	1,137	6.0%
Ohio	680	639	6.0%
Georgia	1,015	968	4.6%

number one in the per cent of decrease of primary and secondary syphilis among states reporting over 500 cases and showing a reduction.

In the category of case rate per 100,000 population, Alabama accomplished the largest decrease of any of the 29 states that had a decrease in number of cases. See Table IV

Table IV

Alabama Department of Public Health
Venereal Disease Program
Decrease

Case Rate Per 100,000 Population Reported
Primary and Secondary Syphilis Morbidity

States	1966	1967	Decrease
Alabama	35.4	25.2	10.2
Mississippi	22.3	15.0	7.3
South Carolina	34.9	30.7	4.2
Alaska	4.6	1.3	3.3
Montana	4.5	1.2	3.3
Hawaii	4.3	1.2	3.1
West Virginia	4.0	1.3	2.7
North Carolina	17.2	15.2	2.0
Massachusetts	5.7	3.9	1.8
New Jersey	10.4	8.7	1.7
New York	14.8	13.1	1.7
Wisconsin	2.2	0.6	1.6

for the comparison with the top 12 states in this respect. Alabama also ranked first in actual number of primary and secondary cases decreased when 351 less were reported in 1967. The only other area to compare with Alabama in this category was New York who reported 301 less cases (see Table V).

Table V

Alabama Department of Public Health
Venereal Disease Program
State Rank By Number
P & S Syphilis Cases Decreased
1966-1967

States	1966 No. Cases	1967 No. Cases	Decrease or Increase
Alabama	1,233	882	— 351
New York	2,695	2,394	— 301
Mississippi	512	348	— 164
New Jersey	714	602	— 112
South Carolina	875	777	— 98
Massachusetts	304	210	— 94
North Carolina	839	747	— 92
Illinois	1,209	1,137	— 72
Wisconsin	90	25	— 65
West Virginia	72	23	— 49
Georgia	1,015	968	— 47
Ohio	680	639	— 41
Iowa	73	45	— 28
Oklahoma	137	111	— 26
Montana	31	8	— 23
Arkansas	151	130	— 21
Hawaii	29	8	— 21
Virginia	313	293	— 20
Nebraska	51	38	— 13
Connecticut	104	95	— 9
Idaho	25	17	— 8
Alaska	11	3	— 8
Kansas	59	52	— 7
New Hampshire	12	9	— 3
Oregon	45	42	— 3
Missouri	145	143	— 2
Nevada	25	23	— 2
Tennessee	306	304	— 2
Utah	10	8	— 2
North Dakota	4	4	0
South Dakota	37	37	0
Vermont	3	5	+ 2
Maine	3	7	+ 4
Rhode Island	26	35	+ 9
Wyoming	2	14	+ 12
Colorado	47	60	+ 13
Delaware	54	71	+ 17
Washington	43	60	+ 17
Minnesota	42	63	+ 21
Louisiana	640	672	+ 32
Kentucky	142	181	+ 39
Maryland	568	609	+ 41
Florida	1,890	1,933	+ 43
Arizona	215	261	+ 46
Michigan	1,213	1,259	+ 46
New Mexico	125	172	+ 47
California	1,604	1,655	+ 51
Indiana	89	202	+ 113
Pennsylvania	467	603	+ 136
District of Columbia	500	864	+ 364
Texas	1,852	2,291	+ 439

In Conecuh and Monroe Counties in 1964 sharp epidemics of syphilis occurred with 22 primary and nine secondary cases being found. This was the origin of the Blitz. Since July, 1964 there has been domestic* eradication of syphilis in these two counties.

Morgan and Limestone Counties had the Blitz on and off from April, 1965 through January, 1966. During this period there were found in Morgan County 47 primaries, 43 secondaries, and 26 early latent and in Limestone County 11 primaries, ten secondaries, and three early latent. From February, 1967 through April, 1968 there have only been two secondaries and one early latent in these two counties and the source on two of these cases was in other states and the third one had his source in Europe.

The Blitz was taken to Montgomery County in June, 1965 and was held six to ten times each month until August, 1966. As a result of the Blitz, Montgomery had the highest case rate (128.5) per 100,000 population of any city over 100,000 population in the United States in that year. Since September 7, 1967 through April, 1968 there has not been a single case of domestic syphilis in Montgomery. However, there has been one case of primary syphilis that had his source in Birmingham and one secondary case whose source was in a Northern State.

Mobile was Blitzed from January through July, 1967, 88 primaries and 91 secondaries were reported. Syphilis was occurring before January at a rate of 30 cases each month. At the present time Mobile is only reporting four to five infectious cases each month and the sources of most of these cases have been identified as occurring outside of Alabama.

Although Birmingham was Blitzed for only three weeks the reporting changed from 25-30 cases a week to 10-15 cases a week at the present time.

Recently in Talladega County a sharp epidemic occurred running from September, 1967 and it moved at a slow pace through the next two months and burst into flame early in 1968. Twelve individuals with positive blood tests were not named as contacts. These positive blood cases gave the key to eventually controlling this massive epidemic in which 66 primaries, 23 secondaries, and three early latents were found. In addition 801 were examined and were given prophylactic treatment and only 147 did not need treatment out of the total examined 1040 (see Chart I). It is interesting to note that a 15 year old female with secondaries infected an 11 year old male with a primary. He in turn infected the 15 year old's sister who was nine years of age. This nine year old child infected an eight year old male and in addition named a total of 19 contacts. It is also interesting that the 15 year old girl named 43 contacts. In one month after this massive Blitz operation not a single new case of syphilis has been found. After evaluation and charting of the epidemic the source was found to come from another state and not from Alabama.

Controlling syphilis in the free populations is much more difficult than in the confined captive group. In a southern prison of 1,076 prisoners there were found 66 primaries, 14 secondaries, and two early latents. These named 209 contacts and all cases and contacts were given 2.4 million units of penicillin. In addition all the other prisoners were given 2.4 million units of penicillin and each new inmate was given 2.4 million units of penicillin. As a result not a single case of syphilis has occurred in this prison since June 1965.

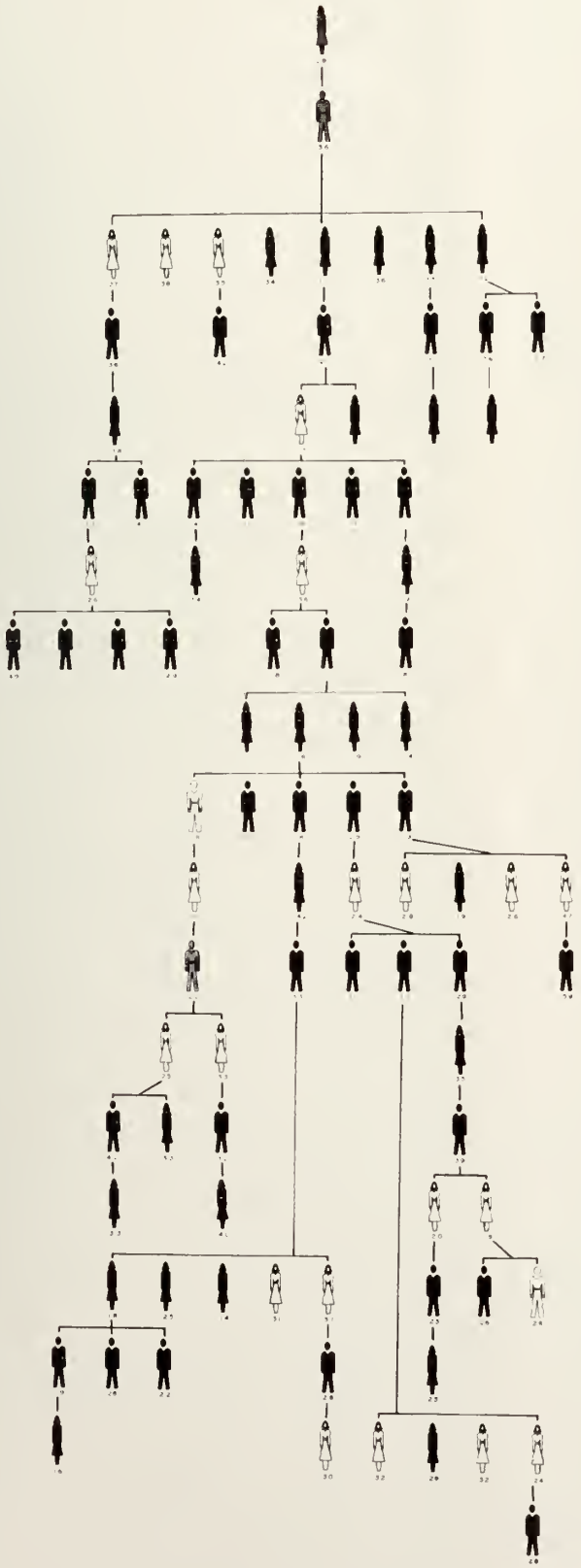
*Domestic Eradication—not a single case of syphilis will originate in Alabama. Although a case or cases could result from an out of state source.

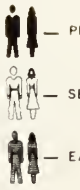
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TALLADEGA COUNTY BLITZ





66	Primary
23	Secondary
3	Early Latent
338	Contacts Prophylaxis
463	Clusters Prophylaxis
893	TOTAL TREATED
13	Contacts Examined---not infected (out-of-state)
134	Clusters Examined---not infected
1040	TOTAL PERSONS EXAMINED
23	Contacts Not Located
12	Clusters Not Located
110	Contacts Previously Named
98	Clusters Previously Named
1283	TOTAL PERSONS NAMED

INTERVIEWING INDICES

Contact	Cluster	Total
5.79	8.00	13.79

The Art of Using IPPB

D. S. Tysinger, Jr., M. D.

Dothan, Alabama

I. Introduction:

Respirators and related breathing equipment can be compared to motor vehicles. A motor vehicle can only do what it is supposed to do when kept in good condition and operated correctly. We find three types of individuals using motor vehicles and likewise using IPPB equipment. First is the individual who understands thoroughly what he is doing and knows how to handle the equipment right. He usually gets good results. Second is the individual who knows nothing about a motor vehicle, who cannot drive, and when it is to be used he gets someone from group one to do his driving and, thereby, he gets good results. Third is the individual who knows so much about motor vehicles that he does not realize how little he really knows about driving and with this false sense of security he has essentially a lethal weapon in many instances. The same is true for IPPB equipment.

Being well versed in pulmonary disease and being well versed in pulmonary physiology does not necessarily add up to being well versed in these mechanical, physical gadgets. If they are not used correctly they cannot produce satisfactory results. Thus we have so many conflicting reports in the literature on the value or uselessness of this type of equipment. Indeed, full knowledge of these mechanical gadgets is frequently not sufficient to enable one to get results in the patient. Getting results in the patient and obtaining patient cooperation is the art of IPPB and is the subject of this article. It is recommended before starting this article that you review: "CLINICAL OXYGEN PATIENT RELATIONS," "CLINICAL CARBON DIOXIDE PATIENT RELATIONS," "CLINICAL RESPIRATOR PATIENT RELATIONS," "ACUTE RESPIRATORY ACIDOSIS-MANAGEMENT, AND AN APPROACH TO CHRONIC RESPIRATORY DISEASE."[1-5] (Very little of the basic knowledge in these articles, which should be learned as preparatory material to approaching this article is covered here)

II. Humidity:

We have known for years that the nose, nasopharynx and upper respiratory tree have a job of adjustment of air as follows; (1) To warm air to body temperature. (2) To humidify it to 100 per cent at body temperature and (3) The cleaning of dust and other particles as much as possible before allowing air to get into the tracheo-bronchial tree. We know that the adjustment to temperature has to do with blood flow through the submucosa. The adjustment to humidity has to do with the degree of viscosity of secretions. These two situations will be considered at the present.

From observations of patients over the last 20 years it is obvious that the adjustment from a cool temperature to a warmer temperature is easier made than is the adjustment from a warm temperature to a cooler temperature. When an individual with broncho-spastic disease goes into a cooler temperature he will get a certain degree of broncho-spasm as a result of the increased vascular demand to heat up the lower air temperature. This is relatively short-lived. It is occasionally noted that going from a cool temperature to a warm temperature is to a much lesser degree a cause of trouble. In such situations the adjustment to temperature change is fairly rapid and is not too much trouble for the naso-pharynx and upper airway. The adjustment is not so easy in relation to humidity. When an individual goes from a humid atmosphere to a dry atmosphere several days as a rule, are required for this individual to adjust to this

change. If the same individual goes from a dry atmosphere to a humid atmosphere, he does not have the same difficulty in adjusting. This is seen in every day practice in the more humid areas where the dry heat used in the winter and dry air conditioning in the summer. This causes the nose to constantly be changing as people go in and out of air conditioned or heated surroundings. This apparently presents no small problem to the naso-pharynx which, in the process of the frequent changes and attempts to keep up with its job, soon begins to show signs of irritation. This is not noticed so much in the dry areas where the adjustment is primarily to temperature. These changes are also slow and progressively irritating. This is one reason for the trouble seen at night as temperature drops and as humidity rapidly rises. In individuals who hyperventilate, one of the first complaints is dryness of the mouth, nose and upper airway, even in 100 per cent humidity at room temperature. This is because room air at 100 per cent humidity is about 50 per cent humidified at body temperature. This dryness makes the patient feel uncomfortable, apprehensive with an increase in tension, and worse mentally and physically. Since all IPPB machines and most respirators are driven by dry compressed air or oxygen, it is necessary that this air be humidified by the time it reaches the airways. This air should be humidified by the time it reaches the airway to 100 per cent at 37 degrees Centigrade or 98.6 degrees Fahrenheit. To do this it takes (at body temperature) approximately 0.0443 cc's of water per liter of dry air to completely humidify it at body temperature. One cc of water will produce 1400 cc's of molecular water vapor at body temperature, 98.6 degrees Fahrenheit (or 37 degrees Centigrade) and at 760 mmHg barometric pressure. Water vapor pressure is 47 mmHg. This amounts to 6.2 per cent water vapor. One cc of water, then, at body temperature and at 47 mmHg pressure or 6.2 per cent water vapor would cause 100 per cent humidification of 22,580 cc's of dry air. Nebulizers are usually run at approximately six liters a minute. They are driven by dry air or oxygen and must pick up enough humidity for 100 per cent humidification at body temperature. Assuming normal barometric pressure and 6.2 per cent vapor this would be 0.0443 cc per liter or 0.267 cc's per six liters a minute at body temperature and 760 mmHg barometric pressure. This would add up to 15.948 cc's an hour or 381.6 cc's per 24 hours. If a nebulizer runs continuously with the IPPB equipment being used it must nebulize 0.267 cc's per minute just to humidify the air flowing through the nebulizer to body temperature when it arrives there. If a patient is given IPPB with this type nebulizer, over a 15 minute inhalation therapeutic period, it would take 3.99 cc's just to humidify the air flowing through the nebulizer. To reiterate, if the nebulizer continuously nebulizes, it takes 0.267 cc's per minute of water to humidify the air through the nebulizer. If the nebulizer continuously nebulizes the water either goes out the exhalation valve or into the patient. Inspiration is roughly one third a minute and expiration roughly two thirds. This would be one third of the fluid nebulized or 0.0886 cc's that would be used to humidify the air to the patient from the nebulizer. If five cc's are used over this 15 minute period then this would be 0.333 cc's per minute. Since only one third is going to the patient with side arm, it would be 0.111 cc's per minute to the patient of which 0.0886 cc's is used to humidify the air through the nebulizer leaving 0.0114 cc's to humidify the air from the machine to the patient. Let's assume an individual breathing six liters a minute at rest and with this side arm nebulization and see what happens. Let's assume 760 mmHg. barometric pressure, 50 per cent relative humidity, and a machine set at 60-40 air-oxygen mixture. In most of these machines the initial flow rate is 100 liters per minute and the side arm nebulizer is pushing moisture in at six liters per minute or six to 106 (1/18th) mixture of the nebulized air to the mainstream flow from the machine with 0.0114 cc's per minute to humidify the flow from the machine. The

air is partially moist and dry in the 60-40 mixture from the machine. In patients breathing six liters a minute, this would be 3.6 liters per minute of air that has been humidified 50 per cent at room temperature which amounts to about 25 per cent at body temperature or 3.6 liters of air that has ¼ the amount of water they need. For 3.6 liters of dry air it takes 0.223 cc's of water vapor; ¾ would be 0.118 cc's required to humidify this room air at this point up to body temperature, which is greater than the amount of water we have left from the side arm nebulizer to humidify this air. The 40 per cent dry air would be 2.4 liters which needs 100 per cent humidification. This would require 0.106 cc's to humidify. In final analysis, to humidify the 60-40 air-oxygen mixture of six liters per minute takes 0.224 cc's of water which is more than the side arm nebulizer is putting out to the patient when it is running continuously. This is a water deficit of 0.213 cc's per minute. If the side arm nebulizer nebulizes 10 cc's over a 15 minute period, it still does not produce enough moisture to take care of the air flow to the patient. Thus the 100 liter flow equipment with side-arm nebulization is an ineffective tool. It can be understood that, with this equipment and with the addition of medication in the nebulizer, it is impossible to get efficient delivery. There is one point that, in using this type of equipment with medication, the molecular escape from particles is slowed because of the increase in the cohesive forces due to the material added. The upper airway has to provide for the humidity deficit thus drying out the upper airway causing discomfort along with medication irritation and patient aggravation.

Now, let's switch to a nebulizer that only nebulizes during inspiration and is mainstream in location with the same 60-40 air-oxygen mixture at the same barometric pressure and 50 per cent relative humidity. In this situation, we are still nebulizing five cc's of material over 15 minutes, or 0.333 cc's per minute during the inspiratory phase. Since all of the air, both from the nebulizer and the machine, passes through the nebulizer and only during the inspiratory phase, then 0.333 cc's per minute are nebulized into the patient. Now, with the 0.333 cc's being nebulized to the patient per minute, 0.227 cc's will be used to humidify if the six liters were dry air. With the 60-40 mixture as we have seen before only 0.224 cc's are now required due to the humidity of the 60-40 mixture. This leaves 0.108 cc's to carry the medication and moisture to the patient. At 0.2 -5 micron particle size this is a far amount for medication. It should be easy to understand at this point that, where large amounts of water are needed, a forceful steam generator will do more than intermittent treatment with IPPB machines. I use 2½ cc's of 80 proof vodka, and 2½ cc's of water. This, in my experience, tends to be a better mixture when mixed with medication than is plain water or salt water. The IPPB used with the "hot pot" will put water in but makes the delivery of medication a problem. Also, it is hoped that it will cool and enter the mouth about body temperature, but it is usually a little higher. Here, water collects into droplets as the air cools. Therefore, particle size is really not predictable. If the air temperature is high then the reactive hyperemia will be a problem with the droplets growing larger as the air cools off and they will tend to rain out in the upper airway. This is good for moistening in tracheo-bronchitis, but not so good as the IPPB without "hot pots" for bronchiolitis. A "hot pot" has no advantage in its effect on humidity. However, with it, one can deliver a lot of water to the upper airway, therefore for chemotherapy use IPPB and for water delivery use a good steam generator.

Nebulizers break the water up into small particles which are suspended momentarily in the air. Particle size for use in the lungs should be roughly 0.2 to 5 microns to traverse the bronchial tubes to the terminal bronchi and rain out along the way. Particles over this size range and up to ten microns tend to rain out in the upper airway (trachea and in mainstem bronchi). Particles sized below this tend to be carried all the way into the

blood stream or into the alveoli and, because of the light buoyancy, do not rain out in the lower airway.

Where we are using mechanical (IPPB) machines, the main object is to get it to rain out in the upper and lower airway as we so desire depending on the disease location. This is accomplished with turbulence secondary to flow rate control of air delivery. The ultrasonic nebulizer nebulizes massive amounts of water with particle size being about 0.02 microns. This is too small; this size particle passes directly into the blood stream and does not rain out well along the way. Particles have a propensity not to rain out, suggesting an electric charge on the particles. Fill an anesthesia bag with ultrasonic mist; go back in an hour or two and it is still in a mist. This is not good. It causes massive water uptake into the blood stream with hydration problems.

A machine produced by Paramedical Research which I have tested, puts out four to five cc's of water a minute and, according to the independent testing lab reports, particle size is 0.2 to four microns. The output is rated at greater than 50,000,000 particles per minute. This is compressor driven, and in my usage, has done what proponents of ultrasonics claim to do. A Bird 500 cc nebulizer with large bore tubing and face tent will nebulize two to three cc's of water per minute at 15 1/min. flow, with particle size 0.2 to five microns. Other stream generators are on the market. I have not had the opportunity to work with them.

A second point is that the nebulizer usually runs about ten to 15 degrees below the room temperature, due to the heat absorbed by the nebulizer. Particles present at this low temperature tend to evaporate in the process of moving from the nebulizer into the lungs. A large air water interface between the surface of each water particle and air as it moves in and as temperature increases causes the larger particles to continually lose molecular water and get smaller. Particles 0.2 microns and smaller tend to continually lose molecular water and disappear. Large particles do not get into the lungs. The final note on humidity that should be understood is the effect of temperature on alveolar water partial pressure and 100 per cent saturation. At a temperature of 40 degrees Centigrade, or 104 degrees Fahrenheit, the water vapor pressure increases from 47 millimeters mmHg. to 54 mmHg. This requires 17 per cent more moisture to humidify the air. This humidity factor automatically reduces the oxygen partial pressure by seven mmHg. and requires more water.

III. Venturies and Oxygen Air Mixing:

To understand venturies we must first basically understand Bernoulli's principle which is the principle of the venturie. If air, or oxygen, is pushed through a small opening into a funnel-like cone, it causes suction or partial vacuum as it moves through the cone proportional to the rate of flow. By controlling the air flow through such a venturie you can determine how much air will be pulled around the jet and what mixture of air and oxygen comes out the other end. All air-oxygen mixers on IPPB equipment are venturie controlled. The venturie mixture changes as pressure is built up distal to the venturie. As the individual begins to breathe, with no pressure build-up in the lung, the flow of oxygen causes a great increase in air mixed at the venturie and gives a lower than average oxygen concentration. As pressure begins to build up in the chest, there is a retarding (slowing of flow) of air due to a build-up of pressure in the patient while oxygen concentration continues to rise as the oxygen injection continues at the same rate throughout. Therefore, when breathing 60-40 air-oxygen, the initial flow is probably 80-20 air to oxygen and mid flow 60-40 and the terminal portion of 20-80. The average would be 60-40. (This is in a normal, compliant lung). The importance of this has been demonstrated. When a group of normal men and women were given routine IPPB, the machines being driven by oxygen set at a 60-40 mixture, the men would average arterial oxygen saturation following IPPB of

about 150 mmHg. pressure. The females would vary from 200 to 250 mmHg. pressure. When the women's brassieres and other restrictive clothing over the thorax were removed, then both men and women ran the same; around 150. What happened was that the venturi was retarded, not from the oxygen jet, but from air mixed with the oxygen due to a reduction of flow rates and a more rapid increase in pressure in the tracheobronchial tree secondary to the restrictive nature of the brassieres. This was sufficient to cause the change in flow rate and an increased oxygen saturation. In the normal individual this would be of little significance and in the simple bronchitis patient it probably is not a major problem. However, in the individual who has rather severe chronic disease with an elevation of PCO_2 already, this could be dangerous. The individual who has trouble with elevated PCO_2 also has trouble because of reduced alveolar oxygen saturations. At the alveolar level, barometric pressure remaining constant and breathing room air, there are two variables. This is the difference between alveolar oxygen and carbon dioxide. Oxygen is normally about 98 to 103 mmHg. pressure in the alveolus. Carbon dioxide is normally 40 mmHg. pressure. They are interdependent on each other as to the amounts of each present. On room air roughly 98 mmHg. oxygen plus 40 mmHg. total 138 mmHg. carbon dioxide a change in one factor necessitates a change in the other. If PCO_2 goes up, then the PO_2 must fall by an equal amount. Therefore, if PCO_2 goes up to 70 mmHg then PO_2, of necessity, must go down to 68 mmHg. If PCO_2 goes to 80 mmHg, PO_2 must come down to 58 mmHg. This applies to an individual getting IPPB as follows: We will assume at this point that the IPPB is delivering an adequate volume. Also, we are assuming adequate volume ventilation in a patient with a restrictive type chest cage and lung disease and machine is being driven on 60-40 air oxygen mixture. His flow rates are reduced and he reacts more like the female with the brassiere, or worse, to develop high arterial oxygen saturations and some reduction of PCO_2 with a washing out of alveolar nitrogen.

As the patient finishes his treatment, his PO_2 drops precipitously due to rapid absorption and hypo-ventilation and PCO_2 rises rapidly with the low arterial oxygen pressures. To begin with we are working on the steep slope of the oxygen dissociation curve; rapid changes occur pressure-wise. The individual during the IPPB period may or may not have washed out a significant amount of CO_2. Over a 15 minute treatment period it is more likely that he does not wash out too much. The machine is run on 60-40 air-oxygen mixture, which, in reality, does not mean that this is the oxygen saturation that he is getting. Due to the restriction, he ends up with a much higher alveolar PO_2 at the end of treatment and a much reduced alveolar nitrogen. When he is taken off of the machine he begins to hypoventilate secondary to suppression by oxygen on the carotid body and respiratory center. He redevelops his alveolar nitrogen level at a slower rate. The oxygen is absorbed at a rapid rate and the rapid decrease causes relative and absolute increase in PCO_2 along with absolute increase due to metabolism. He ends up a short while after such an IPPB treatment with markedly lowered arterial PO_2 and increased arterial PCO_2. In these instances PO_2 can drop rapidly to as little as 15 mmHg. pressure. If this occurs, the hypoxic period with PCO_2 rebound is such that the patient's life is more endangered with medical treatment than it is by his disease itself. This extreme hypoxic rebound will obviously be more detrimental than the IPPB treatments are beneficial. This can be prevented by running the machine on compressed air; not O_2. The same types of phenomena are seen when oxygen is given to a patient with moderately to severely elevated PCO_2. Here, increased oxygen concentrations depress respiration with a marked build-up in CO_2 and reduction in alveolar nitrogen. Following this chain of events oxygen removal, as well as continued oxygen usage, may be lethal. The only way

to evaluate this sort of effect in questionable patients is to evaluate post-treatment pH, PO_2 and PCO_2. In this type situation the rebreathing PCO_2 technique is quite adequate to evaluate the state.

It is much safer not to use oxygen over 28 to 30 per cent anytime, particularly in a patient with chronic lung disease. In the sick patient PCO_2 should be continually monitored. Preferably, one should monitor pH., PO_2 and PCO_2 when the patient is getting oxygen. In this respect we are referring to periodic IPPB treatment. We are not referring to the case of respiratory acidosis with the patient on a respirator continually. Oxygen should not be used at any time in concentration that would cause greater than 80-100 mmHg. 0_2 pressure of oxygen in the arterial blood. Higher pressures became dangerous to all. The only place 100 per cent oxygen is wise or necessary is in shock, in which state so much blood is transferred from the venous to the arterial side in the lungs through preferential channels that 100 per cent oxygen cannot 100 per cent oxygenate the blood to 100 mmHg. pressure.

IV. How to Judge Machine Operation and Evaluate the Patient While He Is Using It.

The pressure registration needle on the front of the IPPB machine is by far the best indicator of what is happening to the patient. Visualize the needle movement as writing on paper and various breathing patterns can be pointed out. One is the pattern of a too high flow rate. With this pattern the needle rapidly rises to the peak and falls back to zero. This means the flow rates and pressures are at such a level that cut-off pressure is rapidly arrived at with much obstruction in the upper airway due to turbulence and, in effect, the patient gets very little ventilation with this type pattern. The same sort of pattern is seen when a patient partially obstructs the opening with his tongue or holds his breath, with either of which the machine will begin to flutter. When a machine flutters there is obstruction in the patient. This may be (a) the patient's tongue, (b) the patient breathing against the machine or holding his breath, (c) this may be due to secretions, particularly in intubated patients, and the patient should be suctioned out. When patients refuse to work with the equipment, and ventilation must be given to save life, the patient should be paralyzed and managed with controlled ventilation.

The next pattern would be that in which flow rates are too slow. Here turbulence is not a problem. The machine is turned on but takes forever, seemingly to begin to move. Thus the inspiratory phase is markedly prolonged and sometimes, at the end, the patient gets tired and takes a deep breath following which there is a slight dip with a rapid rise to peak pressure and cut off. The other low flow rate is just a slow rise occurring over a much extended period, this type usually being followed by a rapid expiration of normal duration making inspiration up to five times that of expiration. These types of inspiration also deliver too small a volume, are tiring to the patient and frequently will help to make the patient dyspneic.

In between these two types is the ideal curve or the one we like to see the patient get. In the ideal curve we would like to see the needle rise about ⅓ to ½ its pressure fairly rapidly during the phase of rapid flow in the major bronchi. At this point the rate of increase of pressure is slowed, so that there is a rapid rise then a slow rise to peak pressure followed by a drop to normal pressure. With this type of pattern the larger tubes are filled fairly rapidly giving more time for filling of the smaller bronchi and bronchioles with slow increase in pressure during this period until finally peak pressure is reached. This is the ideal curve and the one we try to picture the patient getting. To repeat, when the patient is breathing properly on any equipment there will be a rapid rise to ⅓ to ½ the volume, then a slow rise to peak pressure, following which it drops to zero. One other thing should be noted; this is cut-on pressure, which should not exceed one centimeter water pressure. This is indicated by an excessive negative deflection of the

needle at the beginning of inspiration. The individuals using the machine are most sensitive to cut-on pressure and if there is any resistance whatsoever, it will be interpreted as dyspnea, increased difficulty in using the machine and the machine will make them short of breath and they will not work with it. This tends to make the patient panic, so that he sucks on the machine giving a flat, or negative inspiratory phase due to his suction being greater than the inspiratory flow rate. When he gets his lungs full then there is a sudden peak cycling pressure and drop to zero. The patient should not suck on the machine as he would a peace pipe. It is important that he relax, turn on the machine and let the machine fill him up, following which he goes through a normal expiration and repeats the routine. Having the patient count from one to 5-10 during inspiration in his head usually occupies his mind and helps to get his cooperation.

I personally do not care for automatic sighting devices built on the machines. I prefer, rather than using an automatic sighting device, that the technician stay with the patient all the time, observing the needle as it moves, and the patient's response to same. Rather than using mechanical devices, the therapist should watch and progressing from frequently to less frequently as treatment time lengthens, hold the machine on for an extended period for a build-up of up to 30-40 centimeters of water pressure about one time each minute. This should be explained to the patient before it is started. To point out this helps to dilate obstructed areas to the fullest and at the same time puts medication and moisture into these areas and also prevent surfactant type atelectasis due to constant volume ventilation of a fixed portion of the lungs.

It is felt that a review of this section may be of help. In the ideal curve of breathing there is a very slight dip of the needle, approximately one centimeter water pressure to cut the machine on, a fairly rapid rise to 1/3 of the inspiratory phase, followed by a slow rise from there to peak pressure with a rapid cut off and return to zero. Frequently in the early treatment period—and later less frequently—the machine should be held in "on" position with continuous flow and filling until pressure reaches 30-40 centimeters water pressure every 10 to 15 breaths, particularly in obstructive disease. It is common that a patient will take one puff on the machine, then puff repeatedly breathing around the machine while it is on and gets ineffective treatment.

A second important thing in the treatment of patients is to understand the nature of the pressure at which the machine peaks out. It should be set depending on the ventilation of the patient by observation. In the normally compliant individual, it is very easy to continue at about 15 centimeters water pressure and ventilate the patient. As the lungs get stiff due to infections, disease, scarring, etc., higher pressures are needed to produce the same amount of ventilation. It is not uncommon to use 20 to 30 cm water pressure in ventilating diseased lungs. On days when the patient is having trouble he will have a different setting from those days in which he has no trouble. Each patient, as he changes, will need changes in setting of pressure and flow rate and, therefore, he must be continually followed and be studied as to what he needs at what time and for best results. Too high pressures and too vigorous breathing efforts cause stiff lungs. These factors must be closely followed, since it is understanding them that makes the difference in good and bad treatment and in patient reception or rejection.

V. Getting the Patient to Cooperate With The Machine:

Everyone put on any type of breathing equipment automatically hyperventilates. The individual who has had trouble for years has developed the habit of running to the front door or to the window, opening it, breathing cold air and being fanned. There is hysterically felt an increase in ability to breathe by these procedures which in actuality is not so. The obstructed patient breathing very rapidly, builds up tremendous pres-

sure differences. He is producing turbulent obstruction by his hysterical response which causes further alveolar hypoventilation, along with increased O_2 consumption and CO_2 and heat production. The muscle effort is so severe that muscle fatigue begins following which he feels he cannot get a deep breath. During this time he breathes through his mouth with drying out of the mouth and upper airway. This causes vascular engorgement of the upper airway with obstruction and an increase and thickening of secretions. These antics may help dissipate the massive heat produced by the massive muscular effort. This is purely a flow rate problem. There are flow rates above which a patient cannot breathe. The only way to improve this patient is to sedate the patient; to reduce his breathing rate and force to the point that turbulence is stopped or reduced and flow improved. Adequate alveolar ventilation can then be obtained and the patient will begin to feel better and to breathe easier. Acute asthmatic attacks can be broken up if you can get the patient to breathe slow enough and deep enough with the diaphragm. This is the opposite of the normal who can increase ventilation with increase in rate and depth of breathing. However, when using an IPPB machine, he will expect some force, push or pressure to let him know that he is using a piece of equipment that is increasing his breathing. It is frequently necessary to start a patient out with flow rates that are much too high and, as he becomes accustomed to breathing with the machine, to start turning the flow rate down slowly until he is adjusted to a good breathing pattern. One should try to convince the patient that he should notice nothing other than breathing normally; that he should feel no increase in pressure, etc., except for the moisture that he will be getting and a slight increase in pressure at the end of each breath. Also, it is necessary to explain to the patient that he must breathe in just enough to turn on the machine; then relax and let the machine fill him up and then turn itself off. Then, following a normal expiration, this procedure is to be repeated. Explaining that periodically you are going to hold the machine in the "on" position at which time, he should not try to breathe out, but let the machine fill him up as it will improve the rate at which he gets better. It is necessary to point out to the patient, particularly in the beginning, that the treatment is to put in medication that will make him cough more because this is a way of helping to get the secretion and material out of the lungs that must be coughed out. After a period of time with treatment he will begin to do better; his cough will subside because his lungs are more cleaned out at this point and not because the cough is being suppressed. Also, he may run some elevation in temperature until his lungs are cleared out.

The patient has a strong feeling against anything that will aggravate his discomfort, subsequently he feels things such as coughing are against his getting better. Any chest pains, (muscular, radicular, etc.) should be treated as best one can for relief of pain without any restrictive garments or splints if at all possible. The obstructed patient may on routine IPPB treatment actually trap air, and at the end of treatment, feel tight and uncomfortable and worse than when he started. Here a retard cap will act the same during treatment as "purse-lip" breathing does. This causes some endo-bronchial pressure to prevent bronchial collapse and trapping and relieve this sort of thing. A retard cap for a period until it is not needed will help in this type patient.

I find it best to try to show the patient how to use the machine. To start off, as you explain how he is to use it, explain that he is to sit up, lean back in a comfortable position and relax. If difficulty is encountered without a nose clip, then a nose clip should be tried and in many instances great endurance is necessary to work with certain patients to the point that they do cooperate. In such instances as these, a mask will frequently work better in the beginning. However, treatment is not as effective and, after the patient has got accustomed to breathing with the machine, then switch to a mouthpiece.

Following this pressures are cut, and the correct flow pattern is developed by adjusting the machine to the patient. I have found the best way to get the patient to relax is to explain to him that no one knows how to relax, and I would like for him to learn to relax and relax every time he uses the machine. Insist that he relax himself and this way get the most out of his treatment. This is a form of waking hypnosis. The patient is told to sit comfortably as he is taking his treatment. Both feet are to be on the floor, both hands on the arms of the chair. Then he is to take a deep breath, slowly let it out and close his eyes. He is asked then to relax the muscles around his eyes. He is told to notice how good it feels and to keep relaxing them more and more, to the point that they won't open. Just let the eyes completely relax. As they do this, usually you will see a little flickering of the eye lids, possibly some increased tearing, but you will notice the relaxation. The patient is told to let this relaxation extend from the top of his head to the tip of his toes, to feel it going over him like a blanket, and to keep this relaxation so he can much better take the machine treatment. Then explain that the treatment will make him cough more, but that he should stay relaxed. If he loses his relaxation then he is to stop and re-relax himself before continuing with the treatment. In this relaxed position he is again reminded to breathe in enough just to turn on the machine, let it slowly fill him up, cut itself off, and then breathe out normal. This is usually sufficient to get acceptable cooperation out of a patient who will cooperate.

In the unconscious, irrational patient there is no satisfactory way. Sufficient pressure and mask are best used. Frequently a nose clamp helps to prevent the nose removing much of the nebulized medication which cuts down on the effectiveness of treatment. In the irrational, unconscious and un-cooperative semi-conscious patient, there should be no treatment without adequate suction equipment at hand to handle secretions if he fails to cough. In the intubated patient it is important to watch flow rates because of the amount of naso-pharyngeal and laryngeal dead space now removed from the rapid flow portion as the patient starts to breathe in.

In conclusion, it is necessary to know physiology to apply techniques that rearrange physiology. It is just as necessary to know the mechanics and the capabilities of mechanical equipment. Common sense cannot be replaced by any degree of knowledge or any mechanical equipment. The latter is only useful with good common sense. If these three factors are not together, then it is impossible to get the best effect out of any equipment, of any kind, at any time. By understanding the problem, by properly applying the equipment to the patient, by patiently and affirmatively obtaining the patient's cooperation, and at the same time building up the zeal and faith in the equipment, good results will be obtained. Some improvement can be obtained in every patient who needs this type of treatment, when it is used correctly. The technician in the final analysis must be overflowing, enthusiastic, and a thoroughly confident operator of the machine whose enthusiasm will spill over and inspire the patient to at least give the equipment an honest try. If this is done, you will have a cooperative patient and get good results.

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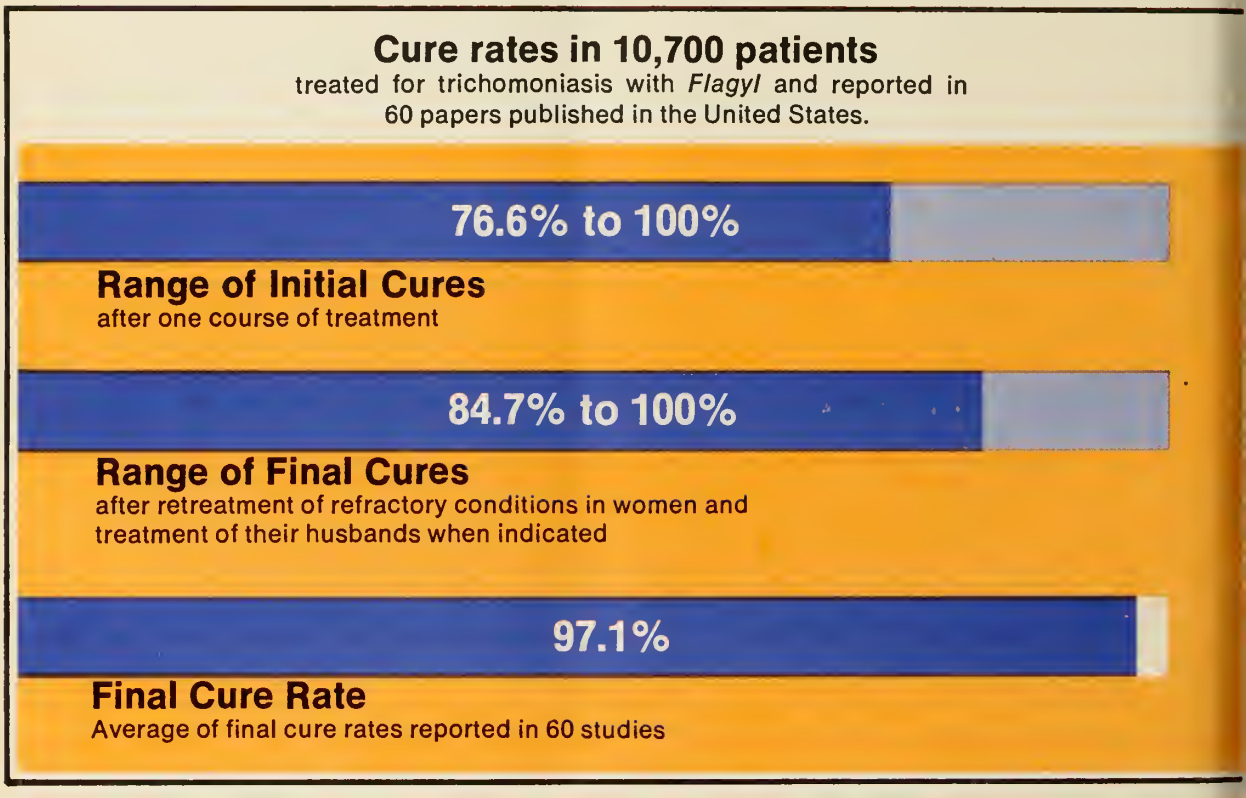
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ominal cramping, constipation, stomatitis, umbness or paresthesia of an extremity, joint ains, confusion, irritability, weakness, cystitis, elvic pressure, dyspareunia, fever, polyuria, inontinence, decreased libido, nasal congestion, roctitis and pyuria. Elimination of trichomonads ay aggravate candidiasis.

Dosage and Administration: In women: one 50-mg. oral tablet three times daily for ten days. vaginal insert of 500 mg. is available for local herapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.

In men: When trichomonads are demonstrated, one 250-mg. oral tablet twice daily for ten days in conjunction with treatment of his female partner.

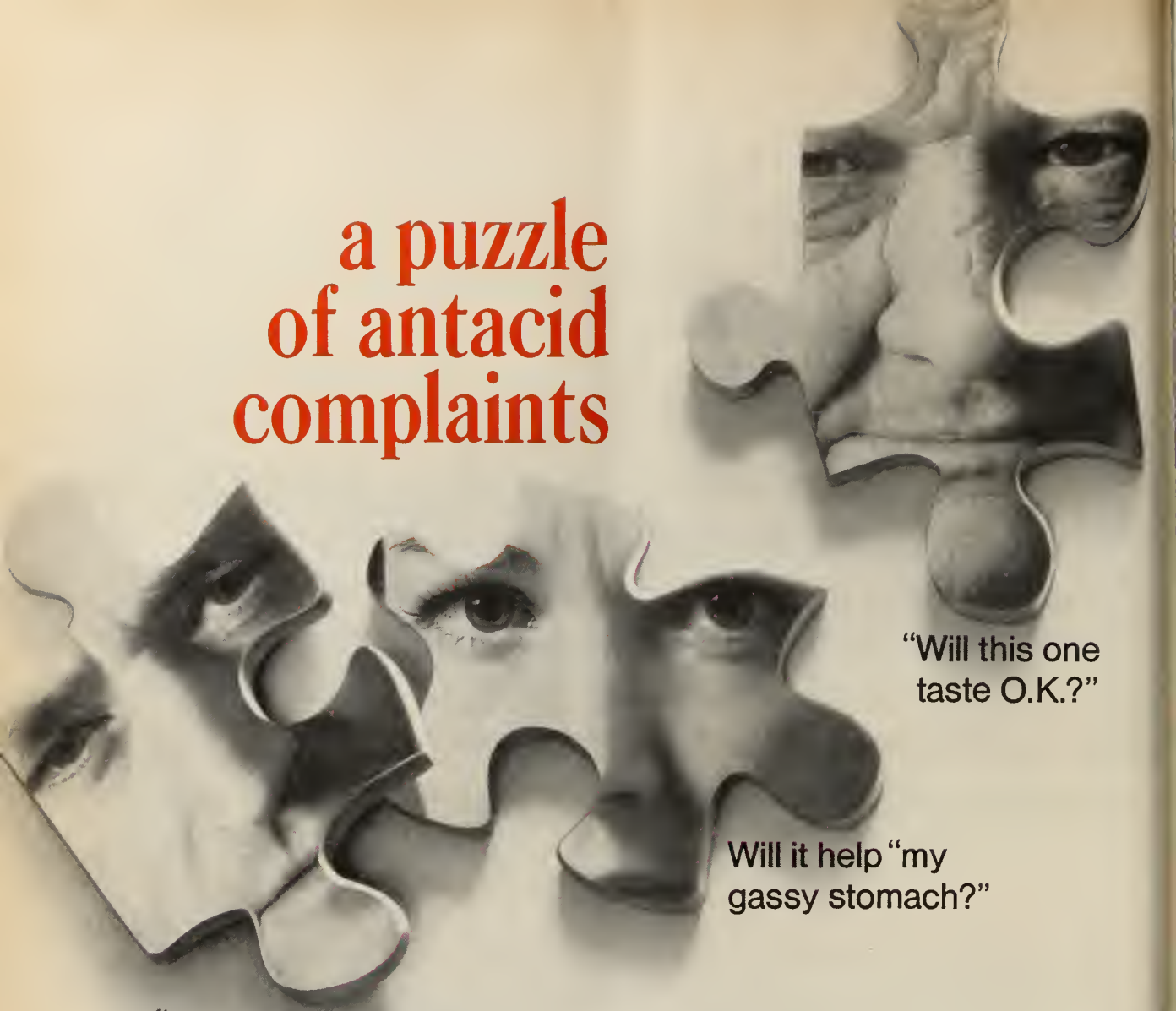
Dosage Forms: Oral tablets—250 mg.
Vaginal inserts—500 mg.

1. Complete list of references on request.

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References: 1. Hoon, J. R.: Arch. Surg. *93*:467 (Sept.) 1966.
2. Danhof, I. E., Personal communication.

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The Physician and the Law

MacDonald Gallion

Attorney General of Alabama

(Editor's Note—The following is the text of an address delivered by Alabama Attorney General MacDonald Gallion at the Annual Session of the Medical Association of the State of Alabama in Birmingham, April 18. Attorney General Gallion's legal look at malpractice litigation is recommended reading for all Alabama physicians.)

I am certain that every participant on this orientation program this morning feels strongly that the subject assigned to him is so broad that he cannot possibly do justice to it in the time allowed. I include myself in that category. Countless volumes have been written on the subject of the physician and the law, volumes which to be read in their entirety would require months. That so much has been written on this medico-legal relationship underscores the obvious—that there is a relationship between the two disciplines which becomes stronger with each passing day and with each new court decision. I am not facetious when I say that the time may come when it will be necessary for the medical schools to teach as much law as medicine. This is a regrettable fact, but a fact nevertheless.

There are many directions I might take today in my brief remarks on this subject. From reading the newspapers and watching television it would seem most timely that I discuss the legal aspects of organ transplants, or I might elaborate on the liberalization of abortion laws, or move into a very deep medical-legal-theological discussion of the definition of death. I am sure that any of these would provoke a spirited response and might even get me a few headlines. However, as I view my responsibility today,



MacDonald Gallion

it is to discuss medico-legal matters of a less spectacular nature, but matters which could have a significant impact on your practice of medicine.

One out of every six doctors in this audience today at some time during his professional career will be faced with a charge of malpractice. If you practice in a metropolitan area, the odds against you are even greater. The statistics I quote come from your own national organization, the American Medical Association, but I fear that the picture may be even darker. The AMA study was made ten years ago and the sharpest rise in malpractice cases has come since that time. There was a time in the history of American medicine when a malpractice suit was a rarity. I fear those days are gone forever. Not only has there been alarming increase in the number of cases filed, but there has also been an increase both in the number and size of judgements returned against the physicians. You need look no further than your own pocketbook to confirm what I am saying. In January of this year the premiums you pay for liability insurance were increased 16 per cent. And if you think that was bad, talk to your medical colleagues in Arizona and Washington. Their rates on liability insurance increased 50 per cent.

A variety of factors has contributed to this suddenly popular patient pastime of suing the physician. One of the major factors has been a recognizable change in public attitude toward medicine and the doctor. Publicity given to the great advances in medicine has caused patients to expect wondrous results which were not always forthcoming. In a development which is by no means limited to the malpractice cases, juries have shown a tendency to award much larger judgements. This is based in part on the effects of inflation, but is also due, I suspect, to the belief—not always entirely accurate—that all doctors are immensely wealthy. Certainly, as an attorney, I would be remiss if I did not include the legal profession as a factor in the increase of malpractice cases—and I refer both to the courts and to the plaintiff attorneys. It is indelibly clear that some courts are extending doctrines which tend to favor the plaintiffs in all types of personal injury litigation. Simultaneously, plaintiff lawyers are becoming more efficient in the prosecution of such suits.

I might digress for a moment to point out a truth which I am sure is recognizable by members of your profession. A malpractice suit, even if it has no merit and is successfully defended in court, nevertheless causes immeasurable harm to the professional and personal reputation of the physician. Regardless of the facts of the case, regardless of the outcome, in the eyes of many the doctor will always be guilty. It is a regrettable truth that no doctor every truly wins in a malpractice case.

Against this background of more malpractice cases and bigger judgements, it seems appropriate that we discuss in general terms ways and means you might avoid being the victim of such a court suit. I am sure that persons far better qualified than I have

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lectured you at length on this subject. However, with the stakes being so high I do not think it inappropriate that you be lectured again.

There are many acts of omission and commission which could result in you being faced by what is called a malpractice suit. An overwhelmingly majority of these suits can be categorized under three headings—battery, negligence and the acts of others. I think it well that we confine ourselves today to these three general areas.

What is meant, legally, by the word battery? Putting it simply, battery is an actual unauthorized body contact. I have noticed that often times the phrase "assault and battery" is applied in reference to a malpractice case. This is incorrect. An assault is involved in many battery cases, but it is not involved generally in charges made against practicing physicians. For this audience, the important thing to remember is that an unauthorized contact may constitute battery even in the absence of intent to do harm. It is this word "unauthorized" which brings us directly to the problem which confronts all medical practitioners. What I am referring to is what you call "consent." But I would remind you and warn you that recent court decisions have given this word "consent" a very broad meaning. It matters not that you were trying to help the patient; it matters not that no harm came from the treatment; it matters not that the patient actually benefitted from the treatment; without consent, either expressed or implied, you can be in serious trouble. Certainly there are instances when a physician must act without consent and under these circumstances he can do so without fear of legal action. If there is immediate danger of death or serious bodily harm or if the person is unable to give consent, a physician can proceed with the proper treatment.

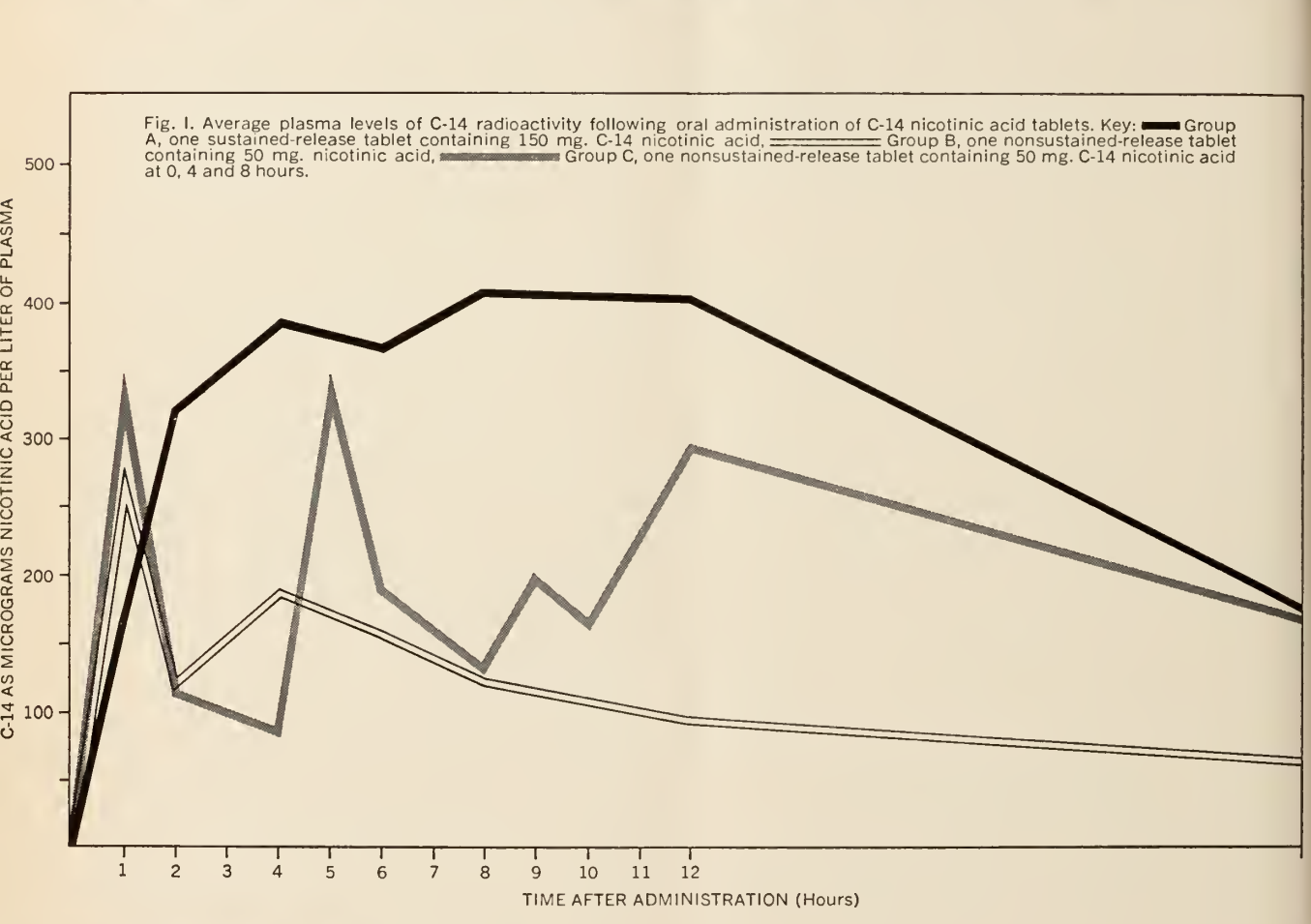
But what we should concern ourselves with today are not these relatively infrequent emergency cases, but instead focus our attention on the safeguards you should take in your day-to-day practice to at least reduce the likelihood of a charge of battery. This brings us directly to yet another important legal expression, "informed consent." The legal requirement that a patient be informed is tricky in that the definition of informed has tended to vary from jury to jury and judge to judge. Generally speaking, however, there are five things which a physician should tell a patient for his consent to be informed. The patient should be told the nature of his condition; he should be told the nature of the proposed treatment; he should be advised of any alternative treatment in his case; he should be told of the risks or consequences of all the alternative tratements; and finally, he should be advised of the chances of failure of the treatment. Due to the increasing number of battery cases against physicians, you have no doubt been taught and I would re-emphasize the importance of securing written consent whenever and wherever possible, with this statement so worded as to also indicate informed consent.

This business of informed consent has created yet another problem for physicians, especially surgeons. There are occasions when it is considered advisable, medically speaking, not to tell the patient the whole truth. This is what I think you call "discreet disclosure." Physicians must be particularly careful in this area. The wrong choice of words in discussing an illness can and has resulted in substantial judgements being returned against physicians. One such case quite recently resulted when a physician in informing a patient with uterine carcinoma told her that she had a "cyst" or an "infection." The use of these two words were determined by the court to be inadequate. Had the doctor instead used the words "growth" or "tumor," no judgement would have been returned against him.

I could continue at some length on this subject of battery, but I will simply conclude with a repeat of my earlier admonition

(Continued on Page 1388)

Sustained circulatory, respiratory and cerebral stimulation for the





(fewer absent doses by absent-minded patients)

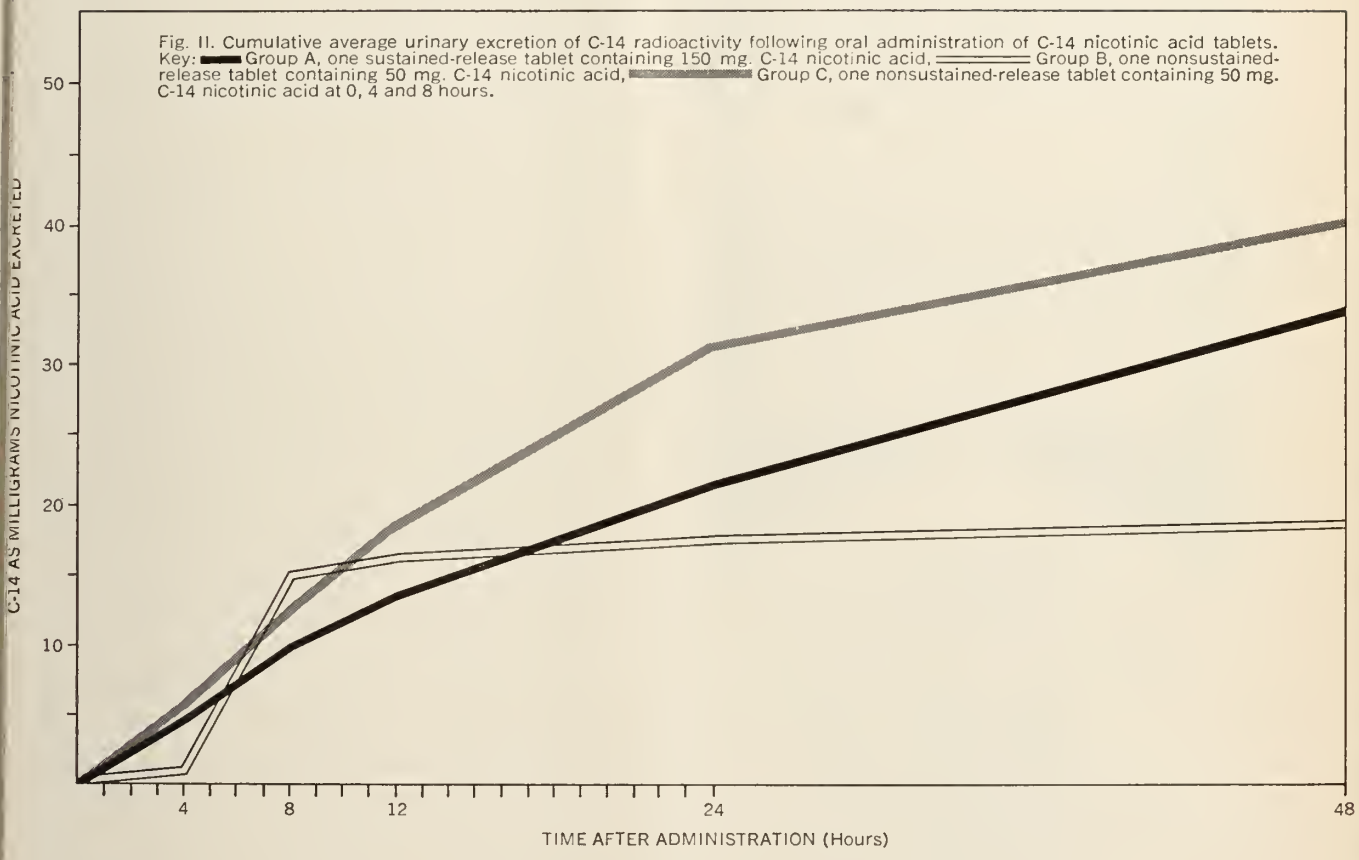
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be continuous on a daily dose of only one Geroniazol TT tablet every 12 hours.

The gradual release of nicotinic acid in Geroniazol TT will provide the well-known peripheral vasodilatation needed in patients with deficient circulation and with a minimum amount (if any) of "flushing." Also, cerebrovascular circulation is complemented by pentylenetetrazol, long-established as a cerebral and respiratory stimulant.

Geroniazol TT improves the typical, unfortunate, signs of senile confusion. Patients become more alert,

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less confused and moody. Personal care, memory, emotional stability, social attention improve. Fatigue, apathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will permit your patients to enjoy the benefits of time-prolonged nicotinic acid/pentylenetetrazol therapy, at an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

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THE PHYSICIAN AND THE LAW

(Continued from Page 1384)

—except in emergency cases, a signed statement indicating informed consent is strongly advised.

The second category under the broad umbrella of "malpractice" which I would like to discuss is negligence. To be quite specific, legally, the negligent acts of a physician are the only ones which can be truly called malpractice. A case of battery or a case stemming from the improper acts of another actually do not constitute malpractice on the part of the physician. Unfortunately, this distinction is not made by the general public today. If a physician is hauled into court by a disgruntled patient, the public views it as a malpractice case, rightly or wrongly. Let us first, albeit repetitiously, make a legal distinction between a battery case and a case of negligence. In a suit for battery, a patient need not prove actual injury; an unpermitted, unconsented-to touching is sufficient. However, in a suit for negligence, besides proving lack of due care, a patient must also prove than an actual injury has been done.

No doubt you have heard of the "Four D's" which if proved can result in a judgement against a physician for negligence. Those "Four D's" are:

(1) That the physician owed a DUTY to the patient;

(2) The physician was DERELICT by failing to act as the ordinary, competent physician in the community would have acted;

(3) The physician, in his failure to act properly, was the DIRECT CAUSE of the patient's injury;

(4) Due to the negligence of the physician, DAMAGES to the patient resulted.

Having seen what a plaintiff must prove to obtain a judgement, we might look for a moment at some of the more common causes of malpractice suits against physicians. It is an accepted fact that one of the leading causes of such suits is a breakdown of the

physician-patient relationship. A patient who has a feeling of friendly trust toward his physician is not likely to sue him even when he is displeased with the results of some treatment. Almost all malpractice suits charging negligence originate from some incident or misunderstanding between the patient and the physician. Another danger area might be put under the heading of "loose talk." Many legal actions have resulted from unwise statements made to a patient or a friend of the patient by the attending physician, his partner, assistant or office nurse. As harmless as such remarks might appear their effect on a jury are incalculable and almost impossible to counteract.

No legal discussion of this question of negligence would be complete without reviewing the rather celebrated legal doctrine of res ipsa loquitur—or to put it in everyday language, "the thing speaks for itself." You perhaps know the origin of this legal doctrine which has had such impact on your profession. About a century ago in England a barrel of flour rolled out a warehouse window and struck a pedestrian on the head. The judge in the suit that resulted from this mishap reasoned that barrels do not ordinarily drop out of windows unless someone has been careless. He concluded that the very circumstances of the accident were sufficient to prove the negligence of the warehouseman. This ruling is still used to this day and particularly in the area of medicine. Courts have held that the very occurrence of certain types of injuries during the course of medical treatment creates an inference of negligence on the part of the physician and a jury may decide the question of liability on the basis of injury alone.

For the doctrine of res ipsa loquitur to be applied in a malpractice suit, three requirements must be met. They are:

1. The injury or damages must be something that does not ordinarily happen unless the physician has failed to exercise due skill and care.

(Continued on Page 1390)

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THE PHYSICIAN AND THE LAW

(Continued from Page 1389)

2. The action or the conduct that caused the damage must have been that of the defendant physician or under his sole control.

3. The patient must not himself contribute to the injury.

The third and final area to be discussed are those suits filed against physicians which resulted not from what he might have done or failed to do, but what was done instead by his employees or agents.

This type of suit grows out of an old principle of law that under some circumstances a man may be held responsible for the wrongful acts of the people who work for him and under him, no matter how carefully he chooses or supervises them. In legalese, which is sometime as confusing as medicalese, this is called the doctrine of respondeat superior—"let the one higher up answer for it." Actually the legal doctrine of respondeat superior extends beyond the employees of the physician and also includes those persons who he asks or invites to assist him. The matter of physician liability has been carried even further recently in a number of court decisions.

Perhaps the most alarming trend in recent years to the surgical profession has been the so-called "captain of the ship" doctrine spelled out in a number of court cases. Perhaps the most celebrated case of this type was Mazur V. Lipschutz, 327 Pa., in which a patient undergoing surgery in a hospital operating room was administered the wrong type of blood and died. The blood had been supplied through the negligence of the blood bank technician, an employee of the hospital. Nevertheless, the appellate court ruled under the "captain of the ship" doctrine that the surgeon was guilty of negligence. This doctrine has not yet been accepted in most states, Alabama included, but it is a trend which you should be aware of.

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Association Attorney Issues Opinion On Civil Rights

Several months ago the physicians of Alabama were advised by the Department of Pensions and Security that in submitting vouchers for payment of services rendered to welfare recipients it would be necessary for them to sign a form indicating whether or not such services were provided in compliance with Title VI of the Civil Rights Act.

The compliance form provoked a number of questions from physicians and subsequently the MASA Central Office asked the association's legal counsel, Mr. W. Inge Hill, for his legal interpretation of the form.

Printed below in its entirety is Mr. Hill's reply. Because of the far-reaching significance of this matter, all physicians are urged to read his letter. It previously was read to the meeting of the College of Counsellors and House of Delegates at the Annual Session of MASA in Birmingham in April.

Text of Opinion

You have inquired of us as to questions two and three raised in your letter to Mr. Ruben King, Commissioner of the Department of Pensions and Securities, which letter bears date March 7, 1968. These questions are as follows:

2. If a physician signs the form indicating he is not in compliance, can this signed form be used against him to force compliance?

3. If a physician indicates he is in compliance when he in fact is not in compliance, does this expose him to any possible legal action by either your department or the U. S. Department of Health, Education and Welfare?

In answer to these questions, we would like to make specific reference to pertinent sections of the Civil Rights Act of 1964 and to regulations issued by HEW under it.

Title VI of the Act, Section 601 provides in effect that there shall be no discrimination on account of race, color or national origin. This section is the one quoted from in the notice to physicians on which this compliance or failure to comply is certified.

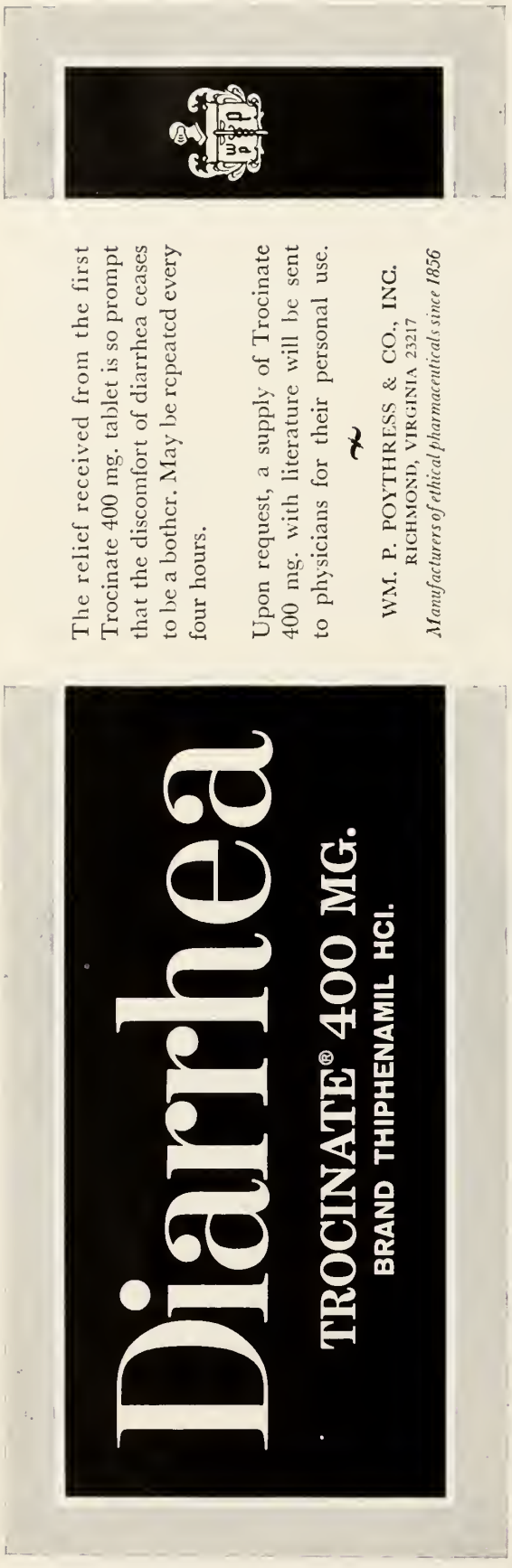
Section 602 of the Act authorizes and directs the various departments of the federal government to implement the provisions of Section 601 by issuing rules and regulations to be approved by the President consistent with the objectives of the Civil Rights Act. Under Section 602 compliance with such regulations may be effected either by termination or the refusal to grant or continue assistance to any recipient of federal funds. This refusal to grant or continue such program is after an opportunity for hearing has been held. Provision for judicial review is made in Section 603.

Section 605 contains exceptions which are not applicable to this program.

Pursuant to the Civil Rights Act, HEW has issued regulations which are found in CFR, Title 45, Section 80. Section 80.3 requires that a recipient under any program shall not subject any individual to "segregation or separate treatment in any matter related to his receipt of any services."

Section 80.4(b) requires a statement of compliance by a state agency carrying out any program. Hence, the Department of Pensions and Securities was required to issue a statement of compliance as a condition to receiving federal funds under this program; also, such assurance of methods of administration that give reasonable assurance that "all recipients of federal financial assistance under such program will comply with all requirements, etc."

Under Section 80.4(a)(1) it is provided that the responsible federal department official, in this case an official of HEW, shall supply the form of assurance of the recipient and sub-grantees or sub-contractors of the recipient. Such assurances include provisions which give the U. S. a right to seek judicial enforcement. It is our understanding that



assurances by individual doctors have not yet been required.

It is our belief from an analysis of the foregoing provisions and regulations that unless and until assurances are required of individual doctors that no judicial action by HEW would be taken against individual doctors. There is a difference between the assurance forms and the compliance forms. HEW required Pensions and Security to execute and submit an assurance of future compliance. No such forms have been required of the individual doctors. However, Pensions and Security requires the doctors to sign notices stating whether they are in compliance. Under the assurances given by the Commissioner of Pensions and Securities, judicial action could be taken by HEW against the State Department for its failure to carry out the assurances which it has given. The department's use of doctors or other providers of services who are not in compliance with the Civil Rights Act would make it subject to disciplinary procedures by HEW. This would probably involve the withdrawal of federal funds from the program. The policy of HEW as of now is to put Pensions and Security on the firing line with the individual doctors. The Civil Rights Act is broad enough to permit HEW to enforce compliance by individual doctors. However, at this point it seems unlikely that they would. Pressure on Pensions and Security is the easier and more likely procedure.

With specific reference to question two, we do not believe that a physician who signs the form indicating he is not in compliance would under present procedures be subject to judicial proceedings to force compliance. Should assurance forms be signed, our answer would probably be different. However, we must state that such a compliance form would be a legal admission that a physician was not in compliance and would be competent evidence against a physician in a judicial procedure to which he was a party in the event HEW through a change of policy undertook enforcement directly against individual doctors. Of course, the failure of a

physician to certify compliance would cause the Department of Pensions and Securities to discontinue the use of such physician under present procedures in order to comply with the assurances which it has previously given to HEW.

In specific answer to the third question, we feel that a physician should in no event report compliance when he in fact is not in compliance. This could expose him to charges such as obtaining funds under false pretenses; or, where use of the mail was involved, use of the mail to defraud.

In your letter of inquiry reference was made to the fact that some Alabama physicians have separate waiting rooms for white and negro patients. From the foregoing you will understand that such separate facilities would not be in compliance with the Civil Rights Act or regulations issued under its authority.

Very truly yours,

W. Inge Hill

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• Some 163 million Americans—four out of every five—were protected by some form of private hospital insurance at the start of this year.

• The nation received a record $11 billion in private health insurance benefits last year, the Health Insurance Institute says.

• The Institute also estimates that persons covered by insurance company policies received $3.1 billion toward hospital bills, nearly $1.8 billion for surgical and medical fees, and $1.2 billion in disability income insurance benefits.

• In all, every type of major health insurance showed increases in persons insured and benefits received during 1967.

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Report on the Third National Conference On Health Education of the Public

Benjamin B. Wells, M. D., Director

Alabama Regional Medical Program

Since the proceedings of the Third National Conference on Health Education of the Public, sponsored by the American Medical Association, Department of Health Education in Chicago, April 4-6, 1968 will not be published, I have tried to capture in my notes the central thoughts and ideas expressed in each of the sessions. There was a considerable amount of repetition and re-statement in the discussions. In the interest of brevity, I have tried to bring many of these together, making no attempt to be verbatim or to attribute specific ideas to individual discussants.

General Impressions: The subject matter was important, highly relevant to current developments for the organization and delivery of health care, and presented by recognized authorities in the field. Interest was well sustained among the 201 attendants, and animated discussions were held both during formal sessions and at every opportunity outside the scheduled program. In my opinion, which I found to be shared by many other attendants, there was some tendency to overstate the failure of medical practitioners to sponsor and participate in the development of health education. This, I am sure, was unintended, since everyone realizes that it is quite impossible for present-day practitioners to give equal and appropriate responses to the multitude of emerging responsibilities that are being pressed upon him. In this connection, I was a bit disappointed to see little emphasis given to the potential role of the health educationalist as one who can (and I believe should) relieve the physician of much of this burden. As I see it, the recognition of new social and professional functions is the very essence of modern medical progress, but the continued assignment of these to the physician is the problem and not the solution of our health care dilemma.

Welcome to the Conference: Dr. Milford O. Rouse, President, AMA, made a brief introductory statement. He noted that health education has always been an important objective of the AMA and that the subject has received major emphasis during his tenure as President. He emphasized the value of informed and intelligent consumership. He warned against the dangers of delay in seeking medical advice and treatment, and he expressed concern about otherwise intelligent people who patronize quacks and purchase nostrums. Patients must be informed, but they must also be made to feel and to act on this information. Perhaps most significant of all, Dr. Rouse remarked: "In the modern medical context, what the individual can do for himself is more important than what can be done for him."

Conference Purposes: Dr. Fred V. Hein, Director, Department of Health Education, AMA, stated the conference purposes thus:

Health education is essential in maintaining and protecting the public health. It is an important part of health care services and the responsibility of many disciplines. The specific purposes of this Conference on health education and health care services are:

1. To review the relationship and significance of health education in health care services;
2. To define the roles and responsibilities of health professionals in health care education;

*Dr. Wells attended this conference in his capacity as Director of the Alabama Regional Medical Program and volunteered to summarize its discussions for the information of MASA members.

3. To provide opportunities for interaction with respect to problems in health care education;

4. To promote coordination of the health education efforts of the many disciplines involved in health care services.

The following numbered paragraphs do not conform to the program agenda, since ideas were not always consistent with program topics. Problems of health education were considered from the following points of view:

1. The locus of teaching: Hospitals, Public Schools, Colleges, Industrial settings, and in the Community.

2. The teacher: Physicians and health professionals, the Health Educator, Public Health Officials and staff, peer groups such as the neighborhood Health Guides.

3. Psychological influences.

1. Health education should be incidental to the delivery of every health care service. Moreover, it can be said that a certain amount of health education is essential to the full success of every health service. In this sense, every health service person is a health educator—good or bad. There is still a need for the "Health Educationist." The latter is a professional who is trained in the basic theory and method of education and modern communication science. He is knowledgeable in the practice of health education, is acquainted with teaching resources and communication media. He is broadly informed in human biology, social science, psychology, and many aspects of the human environment. He can formulate educational objectives, construct curricula, make program plans, and evaluate results. It was noted that beginning March 29 of this year graduate courses in Community Health Education will be accredited by the APHA.

(Continued on Page 1396)



(Continued from Page 1395)

2. The poor, uneducated, and generally disadvantaged are said to be "crisis oriented." They think more of bread, housing, equal opportunities, and minimal essentials for life. In the health field, their need seems to be less for education than for advocacy—someone to help them "fight the establishment" in behalf of their health and welfare. The neighborhood Health Guide (New York) and/or the Ombudsman is being widely suggested as an answer to this problem. Also, using medical students as Health Guides is being tried in several locations. A number of discussants spoke in high favor of this latter mechanism as having value both to medical education and to the community. (This may be a good thing, but there sure are a lot of things for a medical student to do besides study medicine!!)

3. The general hospital would seem to offer a nearly ideal locus for health education directed at the patient, the patient's relatives or friends, and at the health service team. Nevertheless, organized programs are the exception rather than the rule in the hospital setting. Only about 20 trained Health Educationists exist, and only about 6 structured programs are based in general hospitals. Hospitals taking part in health education are the larger units (over 300 beds) and no such effort is in a University Hospital!! The best organized programs are in nutrition, especially in relation to diabetes and obesity; nurses and social workers provide most of the teaching. Financing is minimal and uncertain. A question asked was: "Should insurance and prepayment plans include the cost of health education for the patient?"

4. As a practical issue, most health education is oriented to the chronic, long-term diseases. In the short term non-federal hospitals, which account for the overwhelming proportion of all institutional care, patient education is a low-key operation. Time is preempted by the essentials of direct care, prepared teachers are in short supply, and the duration of hospitalization (about 8 days) makes it difficult to carry out organized programs of patient instruction. The role of the health educator in this important environment was not clarified.

5. Great advances in scientific medicine have improved the quality of services. Physicians are concerned about the increasing complexity of medical care and a tendency toward depersonalization of its delivery. New dimensions have been added, particularly those involving environmental health, long term care of the chronically ill, and a new spectrum of preventive services. A very special problem involves the delivery of health care to our disadvantaged populations. All these are important factors affecting health education.

6. In medical school, little recognition is given to the need to be effective in communicating to the patient the nature of his illness, the characteristics of the health care system, proper methods for entrance into the system, or means for objective assessment of the quality of care received. In other words, physicians are not equipped to make intelligent consumers of their patients. This is central to the whole problem. But, is it feasible or economical to have the physician acquire these skills? Like many other functions in medicine, it seems most logical that the physician only learn to appreciate the need for health educational services, and that he set the standards for those who will carry out the actual teaching.

7. In order to be effective in the service of man, every new advance in health care must be motivated. The advance inevitably generates its specific problems in health education. For example, the public must be persuaded toward a commitment to new preventive measures. These measures are not inexpensive, they are often inconvenient to obtain, and sometimes they are uncomfortable. Environmental health measures are even more difficult to implement. Here we face lack of knowledge, sometimes frank apathy, and often positive obstructions arising from economic and traditional attitudes.

8. An important approach to health education among the hard-to-reach disadvantaged population is the use of neighborhood Health Guides. These individuals are recruited in the locality and from the population that is eligible for the service of OEO clinics and other government sponsored programs. The Guides are trained to represent the needs of the patient in reference to resources available within the local system. Housewives as part-time Health Guides have been especially successful. These people are said to understand the problems and speak the language of the disadvantaged. They have the advantage of lower class know-how, and information from the "inside." Experience has proved that they do a good job of reaching the hard-core indigent population. Other names for this type of worker: Patient Advocates, Health Ombudsmen.

9. Health problems do not have a high priority in the minds of the lay public, particularly the poor. They are far more likely to think first of job opportunities, housing, food, public school education, essential transportation, and even certain non-essential luxuries. When a health problem does arise, this consumer is preoccupied with matters of access, convenience, cost, loss of time in waiting, the dignity and compassion of his handling, and so on. He is rarely concerned about technical matters, manpower shortages, and the like. Thus, we have very special problems in consumer education. But the consumer makes the ultimate choice of service. Consumer education is essential if services are to be relevant, acceptable, understood and wisely used. Perhaps the best health education for the public is the experience of receiving truly high quality and compassionate care.

10. Health education, in general, is poorly conducted. Teachers are few and usually lack proper training. There is apathy on the part of both teachers and learners at all levels. Health problems usually have a low priority as a social issue in the community. This was made worse by the shift from biologically oriented curriculum elements to the physical sciences after Sputnik I (1957). National TV tests and other surveys have shown a very low level of public knowledge in health affairs. A special problem in health education exists among the disadvantaged. In this population, where the need is greatest, most mass media fail (especially any printed matter), and the classical civic voluntary organizations do not reach them.

11. The need for health education is by no means limited to the lower socio-economic classes. Well educated people are frequently quite ignorant in matters of health, poorly motivated toward prevention and care, and become easy victims for quackery and misinformation. As a special class, legislators need health education. Many errors by legislators have made history in this country and others. It was noted, for example, that the legislature of the State of California has recently re-affirmed the authorization of the use of raw milk!!

12. Regardless of who performs the function, health education is an inevitable component of every health service. Planning for the health education component should be part of the planning for the organization and delivery of every service. The health education should be so planned that it makes a positive contribution to the patient, the community, and to the physician and his team.

13. Health education when well conducted at all levels can result in a reduction in the cost of medical care. This statement was made by several discussants. So far as I could tell, it was an item of pure faith, because it was stated without defense, much less proof.

14. Several discussants noted the almost complete separation between hospitals (or other major health care facilities) and the official public health agencies (state, county or city). The question was asked: "Why should not the Health Departments be located in facilities for the delivery of health services? Would this not be consistent with the outcry for coordination?" This dichotomy

was viewed as inhibiting health education and the coordination of many other functions within the health complex. (I found this a most interesting point to contemplate.)

15. Health education in the general hospital setting has shown little progress. Nutritional instruction by dietitians has provided the best example of activity in this category. Among the Hospital Administrators, health education of patients usually has a low priority. The Administrator has tended to leave such matters to (1) the Associations, to whom he pays dues, or (2) the Agencies who inspect and accredit his hospital, or (3) the Government to whom he pays taxes. Hospitals usually focus attention only on the essentials of in-service training. Physician leadership is needed to impress Hospital Administrators and set the standards for further education.

16. An important general need: The development of a curriculum for health education within the structure of Schools of Allied Health Professions. Such programs must be under leadership that knows the structure of the health care industry and the epidemiology of acute and chronic disease. General education fails to produce teachers who have this capacity. The field is full of rank amateurs!! The patient makes the ultimate decision to seek or to accept health care; he must be made aware, motivated, and impressed with the importance of good care. Also, the allied health professions and health occupations can and should be broadly involved in the education mission.

17. Health education has not been a very successful venture in the public school systems. One disruptive influence has been fragmentation into such specific areas as sex education, drug abuse, cancer, heart disease, etc. Teachers often lack conviction; for example, is the periodic health examination really worth its cost and the inconvenience involved? Can the low-income consumer afford the time and dollars to obtain preventive services for himself and his children? Cost and inconvenience (chiefly waiting) are difficult experiences to forget. Also, the health professionals themselves have not always demonstrated conviction.

18. The official public health agencies have done much health education of patients and the lay public. Among their disadvantages are the large scope of their responsibilities, small staffs who are often at the lower end of the status gradient, and a general lack of close liaison with the mainstream of patient care facilities and service. No doubt the function of public health offices could be greatly increased in the field of health education, if they had the resources, the cooperation of non-governmental facilities, and a delegated community responsibility in this field.

19. Health education in the public school system is just beginning to be recognized. Adequate development of this will require a high level of coordination and communication with the providers of health service (which does not now exist); trained and capable teachers; use of all the best of new methods in motivation, instruction, definition of objectives, and continuing evaluation. In their approach to health education in the public schools, educators are using: (1) The new emphasis on behavioral goals or objectives in education, (2) Emphasis on concept developments versus the memory and recitation of facts, (3) The importance of motivation in the teaching and learning process, (4) Optimum use of multi-media resources for instruction, (5) Systematic involvement of the student in the learning process—participative learning, including involvement of the student in the determination of course content, (6) Restructuring of the classroom environment to permit maximum opportunity for individual instruction and the individual pacing of the learning process, (7) Curriculum planning which will achieve the greatest possible relevance to the life experience of the student, (8) An increasing awareness and responsiveness on the part of teachers to health problems as they are experienced and perceived in the society for

(Continued on Page 1403)



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(1) Bilbao, M. K.; Frische, L. H.; Rösch, J., and Dotter, C. T.: Hypotonic Duodenography, Scientific Exhibit, Radiological Society of North America, Chicago, Nov. 27—Dec. 2, 1966.

(2) Bilbao, M. K.; Frische, L. H.; Dotter, C. T., and Rösch, J.: Hypotonic Duodenography, Radiology *89*:438-443 (Sept.) 1967.

SEARLE

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(Continued from Page 1398)

which the student comes, (9) Early recognition of career choices by the student with appropriate attention to health careers, (10) A broad experimental approach to the newer concepts, methods, and social needs in education.

20. Health education at the college level was described as it is conducted at the University of Minnesota. There, the faculty strives to produce a "health-educated person" who is defined as (1) one who knows the basic facts about health and disease, (2) who has learned to protect his own health and that of his dependents, and (3) who has developed a genuine concern for the health of his community. The Student Health Service functions as the official Department of Health for the university community which encompasses more than 50,000 people (students, faculty, employees, and families). Health education is accomplished by four mechanisms: (1) Each visit to the Student Health Service, including the annual survey health examination, is developed as a health education experience, so far as possible. (2) The traditional courses are offered in the School of Public Health, but this activity is not highly rated in the health education context. (3) A Social Service Council, made up largely of students, encourages participation and learning in a wide variety of community responsibilities. This includes the coordination and leadership of all fund-raising activities in the health and welfare field, cooperation with the standard group of voluntary organizations, etc. (4) A University Board of Governors carries out a structured agenda of special health programs, including such matters as alcoholism, drug abuse, sex education, etc. The University creates a practical learning experience designed to equip the graduating student with attitudes and behavior patterns relevant to modern community citizenship. (I was much impressed with this program!!)

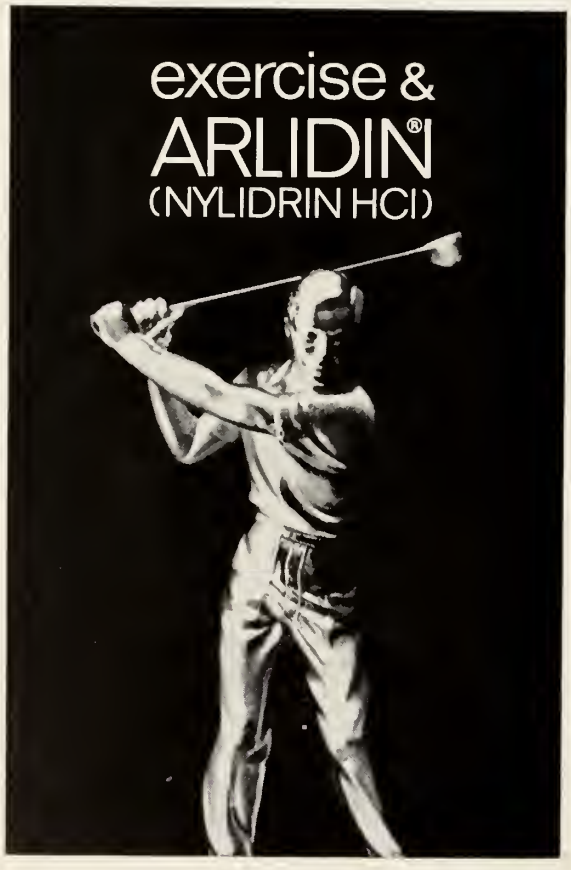
21. The industrial setting offers many opportunities for health education of the public. Many useful channels are available to the industrial physician and his staff; e. g., the plant newspaper, literature racks, payroll stuffers, bulletin boards, display tables, movies, and closed circuit TV for use at coffee breaks, lunch hours, and so on. In a nation-wide survey, only one industry was found to have a qualified health educator; about one-third of the health education is conducted by nurses in industry. Evaluation methods are generally not well developed. Orientation of the new employee offers special opportunities to discuss the special health hazards of the particular industry as well as more general concepts of health. Voluntary health organizations offer some important programs, but they tend to be confined to narrow limits. The Health Education Committee of the Industrial Medical Association intends to strengthen their programs and extend them to a much broader base. Large industries can and do conduct valuable work in health education. Two important questions: (1) How can industry make optimum use of the resources presently available for health education of its employee public, and (2) What can be done for small industries? The small industries in the aggregate encompass a larger number of people, but they usually have little or no resources for a health and safety program. This problem is being attacked by the Industrial Medical Association.

22. Certain new theories of human behavior re-inforce the tenets of common sense and go further to provide innovative mechanisms for health education. Speaking from the theorier of phenomenology as applied to human behavior, a discussant noted that positive behavioral changes are usually not effected by threats. A threat is more calculated to produce defensive reactions—defense of ones beliefs, preconceptions, and those things that one identifies with self. The physician or the health educator must curb his natural tendency to give advice or to tell people what they need to do or what they should do. A more effective approach requires a presentation more relevant to the

self-concept of the individual and more likely to permit him to preserve his self concept. The individual must participate in the discovery of his needs, perceive a solution on his own volition, accept responsibility for his conclusions and actions, and arrive at decisions that have become his own. This theory admits of much more sophisticated explanations. The speaker did an almost unbelieveable job of condensing the psychology of behavior in relation to the topic of the conference.

23. One of the principal objectives of health education is to bring about a closer correspondence between beliefs about health and actual behavior in health matters. A number of surveys covering this point were presented. For example, a much larger proportion of people believe in the value of dental hygiene than the proportion that actually brush their teeth; many more believe in the virtues of exercise and weight control than actually practice these health measures. Knowledge is not followed by action: many physicians continue to smoke, many policemen do not use their seat-belts, and so on. We must learn more about the audience in health education, and study mechanisms for the change of behavior.

24. A very elaborate procedure was described by Dr. Hochbaum for the planning of health education programs. This procedure will identify and produce a detailed analysis of problems for health education, of factors relevant to the control of such problems, resources that can be brought to bear on the problems, alternatives, diminsions, methodology, and evaluation. To be fully understood, this presentation will have to be studied in the publication that is due to appear later this year.



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Alabama Department of Public Health

The Status of Measles Eradication in Alabama

May 1968

Michael C. Sinclair, M. D.

Introduction

In 1963, with the licensure of a live virus measles vaccine, eradication of measles from the United States became an attainable goal.

Availability of a safe, single-dose vaccine which conferred long-lasting immunity together with certain epidemiological characteristics of the disease (readily recognizable clinical syndrome, negligible sub-clinical infection rate, and absence of an extrahuman reservoir or human carrier state) made total elimination of measles a very realistic possibility. We no longer ask the question, "What can we do?," but rather, "How long will it take?."

By the end of 1967, approximately 25 million doses of live measles vaccine had been distributed in the United States.[1] Mass measles immunization programs have been completed in communities in every state; and Rhode Island, Utah, and South Carolina held state-wide campaigns. Measles cases in 1967 fell to 62,232 for an attack rate of 37.4 per 100,000 population. Twenty-five states reported less than 25.0 cases per 100,000 population.[2] In the first 16 weeks of 1968, the National Communicable Disease Center announced that only 10,668 cases of measles had been reported. This represents 29 per cent of a number of cases reported for a comparable time period in 1967 and seven per cent of the previous five-year median.[3]

Epidemic Intelligence Service Officer, National Communicable Disease Center, Atlanta, Georgia, stationed at the Alabama Department of Public Health, Montgomery, Alabama.

The Measles Immunization Program In Alabama

In November and December of 1966, pilot measles immunization projects were initiated in Barbour, Jefferson, Macon, Montgomery, Pickens, and Sumter counties.

On January 1, 1967, Edmonston B vaccine (with measles immune globulin) was made available at no cost to all county health departments through a federal grant. The vaccine was available in unlimited amounts with the restriction that it be used for preschool children only. Forty-four of the 67 counties began to use the vaccine in their health department clinics. In Baldwin, Blount, and Mobile counties the local health department or medical society purchased additional vaccine for school-age children.

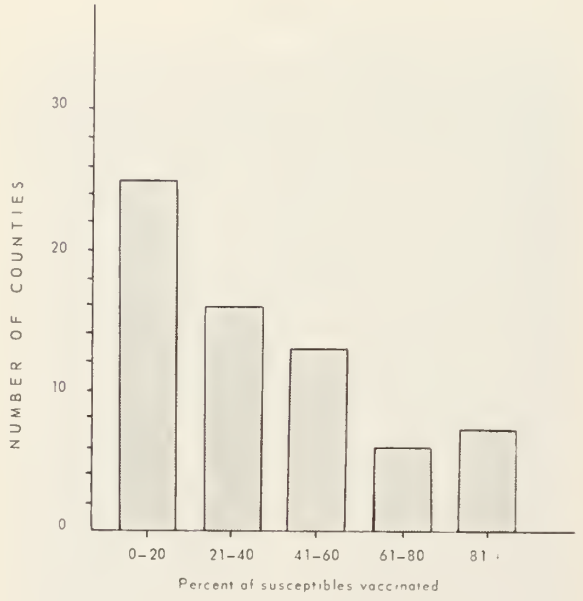
On January 15, 1968, the Alabama State Department of Public Health began supplying Schwarz Strain measles vaccine to local health departments for use in school-age children—again at no cost to the counties. By May 1, 1968, only one county, Clarke, was

not participating in the measles vaccination program.

County health departments incorporated measles vaccine into their routine infant immunization schedules and made special efforts to reach the backlog of susceptibles in their communities. Through regularly scheduled clinics, 26 per cent of the preschool susceptibles in the state were vaccinated in 1967. The effectiveness of these programs varied in different counties (Figure 1). A few counties (St. Clair, Autauga, Cleburne, and Colbert) were able to immunize more than 90 per cent of their susceptibles, but in most areas it was clear that additional efforts were needed.

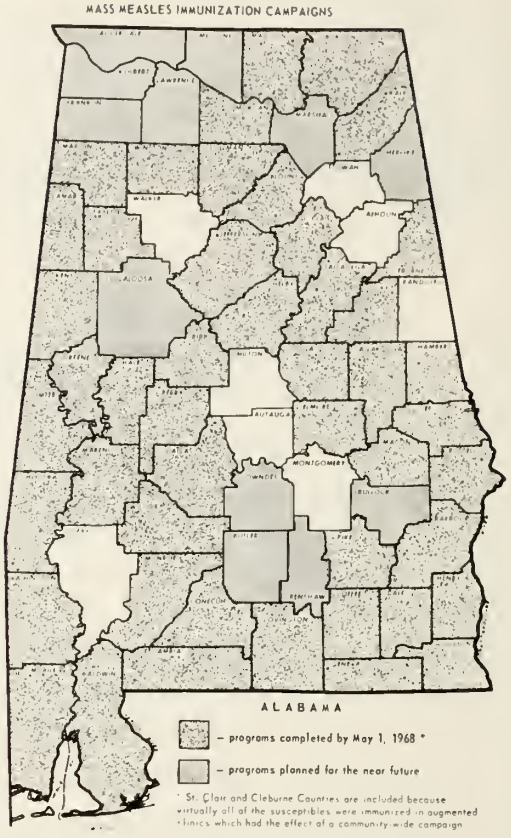
Figure 1

IMMUNIZATION OF PRESCHOOL CHILDREN
BY COUNTY HEALTH DEPARTMENTS–1967
Excluding Mass Campaigns



Mass measles immunization campaigns were carried out in 47 counties which include 82 per cent of the state's 3.6 million population. Twelve additional counties are currently planning mass programs (Figure 2). The campaigns were conducted by the local health departments and/or medical societies with consultation and technical assistance from the Immunization Project of the Alabama Department of Public Health. Local civic organizations (e. g., Jaycees) volunteered to do some or all of the promotional work.

Figure 2



Most vaccinations were administered with jet-injector guns. Gun operators included physicians, nurses, or Immunization Project personnel. In most rural areas, programs were conducted by immunizing teams which traveled from school to school. Parents were instructed to bring preschool children to the most convenient school clinic. Cooperation of school administrators and faculty was, without exception, excellent.

In large metropolitan areas the programs were conducted on a Saturday or Sunday with many simultaneous clinic sites throughout the community. The number of children immunized in the mass campaigns was usually 90 to 110 per cent of the estimated number of susceptibles. Unavoidably, some vaccine was wasted through administration to non-susceptibles.

From November 1966 through May 1, 1968, approximately 221,000 children (105,000 preschool and 116,000 school age) were given measles vaccine in public clinics in Alabama. Mass campaigns accounted for 151,000 doses and regular health department immunization clinics for 70,000. It is impossible to accurately count the number immunized in private physicians' offices, but it is estimated at about 25,000.

About ten per cent of a population of children become immune to measles in each year of life until about age nine. By age twelve, 95 per cent of the children are immune. Most of this immunity comes from the naturally acquired disease; the remainder from artificial immunization.[4, 5, 6] From age-specific population figures, estimates of the number of susceptibles can readily be made. Widespread vaccination will undoubtedly change the epidemiology of measles and eliminate the usefulness of this method of estimating the proportion of measles immunes.

At the beginning of the measles immunization program in Alabama, there were an estimated 263,000 susceptible children between the ages of one and 12 years. After 17 months of an active measles eradication program, the number of susceptibles stands at 63,000*. Although there are weaknesses in these estimates, the guidelines which they provide have been very useful.

The Effect of the Measles Immunization Program

Most of the 221,000 immunizations mentioned above were administered late in 1967 or early in 1968; therefore, the impact is just becoming apparent. In general, we expect better reporting to accompany a decline in the incidence of a disease, especially where the medical community has expressed a special interest in the disease by supporting an eradication effort. Thus, the actual decline in the number of cases may be more striking than is apparent from the number of reported cases.

Table I

Measles Morbidity and Mortality in Alabama

Year	Cases	Deaths	Attack Rate Per 100,000 Population
1962	2,423	11	72.2
1963	1,336	4	39.3
1964	18,678	13	543.1
1965	2,511	12	72.2
1966	1,844	3	53.5
1967	1,397	6*	39.2

*Provisional

In 1967, 1,397 cases of measles were reported in Alabama for an attack rate of 39.2 per 100,000 population. This rate is slightly above the national average of 37.4 per 100,000. In Table 1, the cases, deaths, and attack rates for measles are compared for the last six years. The number of cases in 1967 was 76 per cent of the 1966 total and 70 per cent of the previous five-year mean. The attack rate showed a similar slight decline.

In the first four months of 1968, only 43 cases of measles were reported. This number is five per cent of the total for the comparable time period in 1967 and three per cent of the previous five-year mean. Measles has been reported in Alabama since 1924*, and never before were fewer than 100 cases reported in the first four months of a year. The characteristic upswing of the epidemic curve for late winter and early spring is

*The current estimate of susceptibles is derived as follows: From the number of susceptibles in the preceding year (263,000), subtract the number of children who became immune by vaccination in public clinics (221,000), private physicians' offices (25,000), and naturally acquired measles (14,000 or ten times the number of reported cases). To the remainder, add the number of children who have reached their first birthday in the past year (60,000)—the arbitrary age at which we consider children no longer protected by maternal antibodies.

*Measles was reportable in Alabama in 1923, but the monthly breakdown of this year's total is not available.

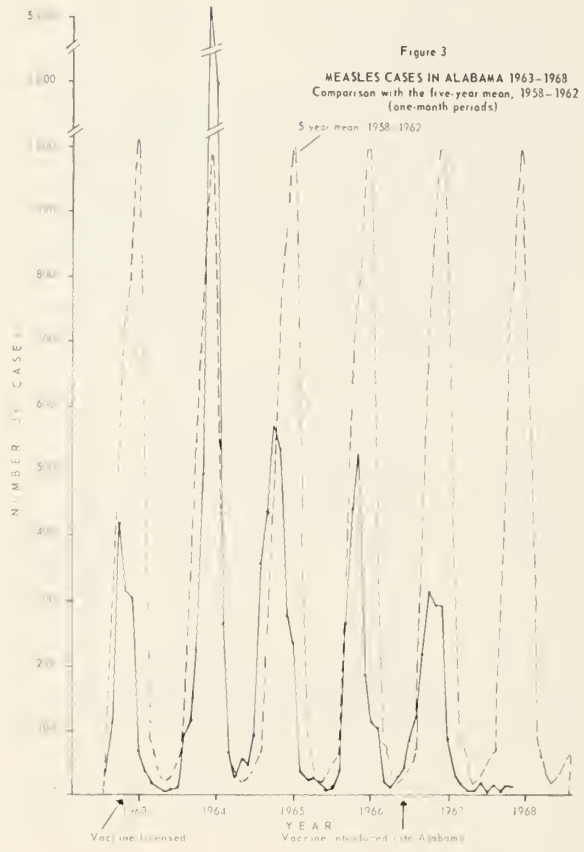


Figure 3

MEASLES CASES IN ALABAMA 1963–1968
Comparison with the five-year mean, 1958–1962
(one-month periods)

absent (Figures 3 and 4). In 1968, we expect for the first time to have under 200 cases of measles reported.

Equally striking is the effectiveness of properly conducted immunization programs in specific communities. In 1967, 84 per cent of the estimated 28,500 susceptibles in Mobile County were immunized. Most of these vaccinations were administered in a mass program on May 6, 1967. In the ten months since the mass campaign (excluding the month of June), only one case of measles was reported from that county, in contrast to 413 cases in the first six months of 1967.

In Jefferson County, 56,700 children, or approximately 100 per cent of the estimated number of susceptibles, have been immunized since the program began. Seventy per cent of these injections were given in a mass campaign on December 10, 1967. In the first four months of 1968, Jefferson County reported only nine cases of measles compared to 63 in the first four months of 1967.

Conclusions

To eradicate measles in Alabama we must do the following:

1. Immunize the remaining backlog of susceptibles (63,000). In most communities this means conducting a mass campaign if one has not been completed.

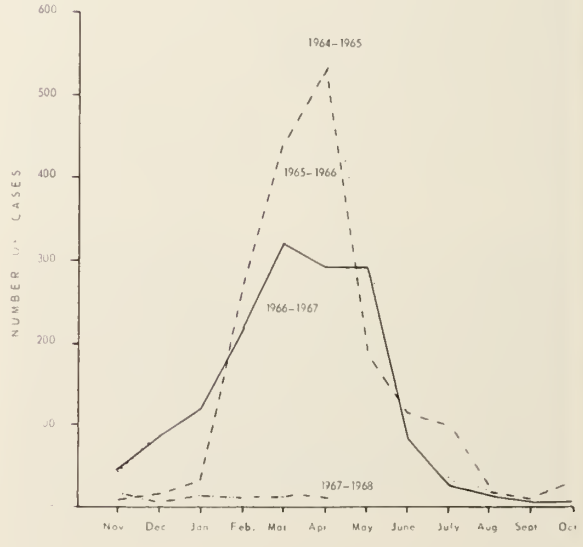
2. Vaccinate all new susceptibles. This goal is being achieved in many areas by incorporating measles vaccine into the routine infant immunization schedule.

3. Re-check each child at the time of entrance to school or kindergarten and immunize those who have been missed.

4. Establish good surveillance so that when cases do occur, prompt investigation can determine the protection status of the community, and epidemic control measures can be instituted when necessary.

Figure 4

SEASONAL INCIDENCE OF MEASLES IN ALABAMA
Epidemiologic Years by one-month periods



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Acknowledgement—I am indebted to Mr. Raymond Overton, Immunization Project Coordinator of the State of Alabama, for his helpful suggestions and criticisms in the preparation of this manuscript.

BUREAU OF LABORATORIES

Thomas S. Hosty, Ph.D., Director

April 1968

Examination of Intestinal Parasites	2,591
Examination of Malaria	3
Examination for Salmonella & Shigella (blood-feces-urine-food)	253
Examination for tubercle bacilli	5,137
Examinations for gonococci	2,231
Serological tests for Syphilis	31,660
FTA	80
Darkfield	1
Brucella	0
General Bacteriology (cultures for isolation and confirmation)	29
Staphylococcus (cultures for isolation and confirmation)	16
Examinations for diphtheria (cultures for isolation and confirmation)	11
Streptococci examinations	2,561
Mycology	53
Agglutinations	18
Vincent's infection	8
Complement fixation tests	149
Tests for Phenylketonuria (PKU)	6,646
Cytology	1,734
Water examinations	3,066
Milk and Dairy products examinations	5,908
Sea food examinations	282
Examination for Negri bodies (smears & animal inoculations)	372
Virology	20
Rh factor bloods	813
Miscellaneous	783
Total	64,425

BUREAU OF VITAL STATISTICS

PROVISIONAL BIRTH AND DEATH STATISTICS AND COMPARATIVE DATA

Ralph W. Roberts, M. S., Director

February 1968

Live Births / Deaths / Causes of Death	Number Registered During February 1968			Rates* (Annual Basis)		
	Total	White	Non-White	1968	1967	1966
Live Births	4,901	3,159	1,742	17.2	19.3	19.8
Deaths	2,791	1,862	929	9.8	9.3	10.1
Fetal Deaths	78	33	45	15.7	16.4	16.7
Infant Deaths—						
under one month	91	55	36	18.6	15.2	17.6
under one year	142	71	71	29.0	28.0	32.0
Maternal Deaths	1		1	2.0	3.7	5.5
Causes of Death						
Tuberculosis, 001-019	18	7	11	6.3	6.2	6.3
Syphilis, 020-029	6	3	3	2.1	1.8	1.1
Dysentery, 045-048						
Diphtheria, 055	1	1		0.4		
Whooping cough, 056					0.4	
Meningococcal infections, 057	2	1	1	0.7	1.1	1.1
Poliomyelitis, 080, 081						
Measles, 085					0.4	
Malignant neoplasms, 140-205	375	270	105	131.3	125.9	117.3
Diabetes mellitus, 260	64	39	25	22.4	16.8	14.4
Pellagra, 281						0.4
Vascular lesions of central nervous system, 330-334	398	260	138	139.4	112.7	142.1
Rheumatic fever, 400-402					0.7	0.4
Diseases of the heart, 410-443	932	678	254	326.4	319.4	344.3
Hypertension with heart disease, 440-443	100	44	56	35.0	34.8	40.3
Diseases of the arteries, 450-456	73	46	27	25.6	24.1	24.8
Influenza, 480-483	24	15	9	8.4	0.7	3.3
Pneumonia, all forms, 490-493	113	70	43	39.6	32.6	49.2
Bronchitis, 500-502	10	10		3.5	3.7	3.0
Appendicitis, 550-553	1	1		0.4	0.4	1.8
Intestinal obstruction and hernia, 560, 561, 570	11	8	3	3.9	2.9	6.7
Gastro-enteritis and colitis, under 2, 571.0, 764	3	1	2	1.1	2.2	3.0
Cirrhosis of liver, 581	16	11	5	5.6	6.6	7.8
Diseases of pregnancy and childbirth, 640-689	1		1	2.0	3.7	5.5
Congenital malformations, 750-759	22	17	5	4.5	5.3	3.6
Immaturity at birth, 774-776	26	17	9	5.3	3.4	3.7
Accidents, total, 800-962	179	115	64	62.7	78.7	68.1
Motor vehicle accidents, 810-835, 960	81	61	20	28.4	36.6	26.3
All other defined causes	354	233	121	124.0	126.6	131.8
Ill-defined and unknown causes, 780-793, 795	162	59	103	56.7	48.7	66.6

*Rates: Birth and death—per 1,000 population
Infant deaths—per 1,000 live births
Fetal deaths—per 1,000 deliveries
Maternal deaths—per 10,000 deliveries
Deaths from specified causes—per 100,000 population



The Month in Washington

From the Washington Office
American Medical Association

Washington, D. C.—The federal government has established a new agency and appointed two new advisory committees in the health care field.

The new agency is the National Center for Health Services Research and Development. The committees are:

1. The Medical Assistance Advisory Council that will advise the secretary of Health, Education and Welfare on matters relating to federal-state medical aid programs.

2. A panel to give the social security commissioner advice on experiments to find new methods of reimbursing hospitals and physicians for health care under medicare and other federal health programs.

Health, Education and Welfare spokesmen said the new center will work with universities, industry, hospitals, practitioners and research institutions to seek new ways of delivering health care, was authorized by Congress last year at the Johnson administration's request.

"The ultimate goal of the center is to aid practitioners and institutions involved in health services to improve the distribution and quality of services and to make the best possible use of manpower, funds, and facilities," said Dr. Philip R. Lee, assistant HEW secretary for Health and Scientific Affairs.

The immediate goals of the center were listed as:

—More efficient utilization of health personnel, including the development of new types of health workers at the professional, technical and auxiliary levels.

—Increased productivity and better management of all elements of the medical care system to improve quality and moderate rapidly rising costs.

—Technological innovation, for immediate application, to achieve cost reduction and quality improvement.

—To survey and analyze health systems, including costs and financing and to test new concepts and systems of health care delivery.

—To recruit, train and develop personnel for health services research, including the establishment of regional, non-Federal centers for health services research and training.

—Collection and correlation of existing information on health services delivery for planning and organization design.

—Initiation of systems' studies of institutional design, construction, equipment and maintenance and support construction of cost-saving innovations.

Director of the center, which is under the newly created Health Services and Mental Health Administration, is Dr. Paul J. Sanazaro, who had directed education and medical care research for the Association of American Medical Colleges since 1962.

HEW said the advisory council would be consulted on program development and practical operational problems involved in Medicaid (Title XIX of Social Security). Such programs are in operation in 38 states, Guam, Puerto Rico and the Virgin Islands. Rashi Fein, Ph.D., a chief economist at the Brookings Institution, was named chairman of the 21-member council which includes six physicians:

John B. Farley, Pueblo, Colo.; Thomas B. Georges, Pennsylvania health and welfare official; Amos N. Johnson, Garland, N. C.; Maynard Shapiro, Chicago, president-elect of

the American Academy of General Practice; George W. Slagle, Battle Creek, Mich., chairman of the American Medical Association's Council on Medical Service, and Donald Smith, public health professor at the University of Michigan.

The Social Security Administration said the reimbursement panel would review proposals for experiments submitted by institutions and individuals in the health care and health insurance fields. After such reviews, it will be asked to recommend the ones it believes to have the greatest potential.

Nathan J. Stark, a Kansas City, Mo., businessman is chairman of the 17-member group. Four members are physicians: Solomon J. Axelrod, University of Michigan; Thomas W. Georges, Jr., Pennsylvania welfare official; Donald R. Hayes, Springfield, Mass., and Pierre J. Salmon, San Mateo, Calif., county public health and welfare official.

* * *

The American Medical Association urged that Congress appropriate maximum amounts for support of medical education.

The AMA position was outlined by Dr. C. H. William Ruhe, director of the AMA's division of medical education, at a hearing of a House appropriations subcommittee.

"We recognize the present concern of the Congress and the nation for an overall reduction in federal expenditures," Dr. Ruhe said. "However, we believe that the urgent need for more physicians merits the funding, to the fullest extent possible of legislation supporting medical education. . . .

"An urgent need exists in this country for more physicians to meet the health care needs of the American public. This need can only be met effectively by a major increase in the capacity of American medical schools to educate more physicians."

Dr. Ruhe noted that Federal aid to medical schools under the proposed Health Manpower Act of 1968 would not become available before 1970. Therefore, he said efforts must be made to secure the essential immediate increase in financial support through increased appropriations under existing law. He listed the Health Professions Educational Assistance Act, the Health Research Facilities Construction Act, the Medical Act, and the general research support authority of the National Institutes of Health.

* * *

Gov. Nelson Rockefeller of New York and two other witnesses at a Senate subcommittee hearing supported national compulsory health insurance as a solution of the problem of rising health care costs.

The other witnesses were Olcott D. Smith, chairman of Aetna Life and Casualty Company, who expressed belief that private companies could work with the government effectively on such a program, and economist Victor Fuchs.

But Wilbur J. Cohen, acting secretary of Health, Education and Welfare who favored the plan 20 years ago, said he now believes the government should move on other fronts. He said it would be difficult—a "monumental task"—at this time to achieve a workable and acceptable program of compulsory national health insurance. He did not foresee the United States following the pattern of European nations in adopting a monolithic central health system for the entire nation. He said this country is too large for a single plan but that the benefits under any various plans adopted should be relatively uniform for all Americans.

Cohen said first priority now should be given maternal and child health programs. He listed as other "must" programs the expansion of medical manpower and health facilities and the continued investment in health research.

Sen. Abraham Ribicoff (D., Conn.), chairman of the subcommittee holding hearings on health care costs, also said that the emphasis now should be on more immediate solutions. He said that his experience with the fight

over medicare had convinced him that it would be a long time before Congress would accept compulsory national health insurance.

He said that the first week of the hearings "made clear that a health care system in America must include everyone—public and private organizations, insurance companies, the Blues, the voluntary hospitals, nursing homes, medical societies, individual private practitioners, those who practice medicine in groups, and state, local and federal agencies."

* * *

Manufacturers of oral contraceptives are being asked by the Food and Drug Administration to revise uniform labeling for the products to reflect findings from research in Great Britain that there is an association between the use of oral contraceptives and thromboembolic diseases.

Dr. Herbert L. Ley, Jr., director of the FDA's Bureau of Medicine, notified the manufacturers of the publication of the British reports in the April 27 issue of the British Medical Journal. He called the companies to a Washington meeting for discussion of "prompt revision of uniform labeling."

Proposed labeling changes, based on preliminary results and unofficial reports of the British findings, had been submitted to U. S. manufacturers by the FDA last month.

The proposed new FDA labeling would reflect the findings of the British studies and would be aimed at prescribing physicians, an FDA spokesman said.

Emory Physicist Conducts New X-ray Studies

Where do X-rays come from? What is the best way to produce X-rays with radioactive materials? How can we predict their intensity?

An Emory University scientist is looking for better answers to these questions in a series of experiments using a new type of radiation detector with extremely high sensitivity.

Dr. John M. Palms, assistant professor of physics, is conducting studies of atomic inner-shell transitions using nuclear techniques. The project is financed for a year by a $9,500 grant from the Research Corporation, a private foundation in New York City devoted to the advancement of science.

Says Dr. Palms: "We're producing holes in the cloud of electrons around the nucleus of an atom and watching the manner in which the holes are filled."

This process of electronic displacement, he explains, is a cause of X-ray emission from radioactive elements.

Each element (and each isotope of an element) has its own characteristic X-ray or gamma-ray pattern, Dr. Palms points out.

Working with a Nuclear Spectroscopy Group at Emory and the Georgia Institute of Technology in Atlanta, Dr. Palms has spearheaded the development and uses of high-resolution, cooled, silicon and germanium semiconductor gamma-ray and X-ray detectors. He is applying for a patent on one of these devices.

According to Dr. Robert H. Rohrer, chairman of the Emory physics department, the Nuclear Spectroscopy Group is generating new data of great importance in several fields of research.

In particular, the work is of interest to (1) physicists who develop theoretical models of the structure of the nucleus and the atom; (2) the program of the National Aeronautics and Space Administration which is seeking the answer to the formation of the planets and the origin of the universe by the analysis of astrophysical materials that may be recovered by extraterrestrial space probes, and (3) the medical teams that use radioactive materials for the analysis of diseases and treatment of patients.

County Health Officers and Administrators

County	Health Officer or Administrator	Address
Autauga	Dr. J. B. Dismukes (H. O.)	Box 450, Prattville 36067
Baldwin	Dr. E. F. Goldsmith (H. O.)	Box 150, Bay Minette 36507
Barbour	Dr. Ruth R. Berrey (H. O.)	Box 217, Clayton 36016
Bibb	Mr. J. P. Chism (H. Adm.)	105 Locust St., Centreville 35042
Blount	Dr. W. J. Donald	Box 96, Oneonta 35121
Bullock	Dr. J. B. Dismukes (H. O.)	Box 430, Union Springs 36089
Butler	Dr. J. B. Dismukes (H. O.)	Box 339, Greenville 36037
Calhoun	Dr. J. G. Baxter (H. O.)	Box 488, Anniston 36202
Chambers	Dr. C. F. Floyd (H. O.)	Box 319, LaFayette 36862
Cherokee	Dr. Virginia E. Webb (H. O.)	833 Cedar Bluff Road, Centre 35960
Chilton	Dr. C. S. Cotlin, Jr. (H. O.)	Box 147, Clanton 35045
Choctaw	Dr. W. J. Donald	Box 524, Butler 36904
Clarke	Dr. W. J. Donald	Box 475, Grove Hill 36451
Clay	Dr. J. D. Rayfield (H. O.)	Box 325, Ashland 36251
Cleburne	Dr. J. G. Baxter (H. O.)	Box 36, Heflin 36264
Coffee	Dr. C. D. McLeod (H. O.)	Box 329, Elba 36323
Colbert	Dr. R. E. Harper (H. O.)	Box 30, Tuscumbia 35674
Conecuh	Dr. E. F. Goldsmith (H. O.)	Box 208, Evergreen 36401
Coosa	Dr. C. S. Cotlin, Jr. (H. O.)	Box 235, Rockford 35136
Covington	Dr. C. D. McLeod (H. O.)	Andalusia 36420
Crenshaw	Dr. J. B. Dismukes (H. O.)	Box 326, Luverne 36049
Cullman	Dr. S. D. Waldrop (H. O.)	305 North 4th Ave., East, Cullman 35055
Dale	Dr. W. J. Donald	Box 326, Ozark 36360
Dallas	Dr. J. S. Ross (H. O.)	Box K, Selma 36701
DeKalb	Dr. W. J. Donald	Box 347, Fort Payne 35967
Elmore	Dr. C. S. Cotlin, Jr. (H. O.)	Box 316, Wetumpka 36092
Escambia	Dr. E. F. Goldsmith (H. O.)	Box 66, Brewton 36426
Etowah	Dr. Virginia E. Webb (H. O.)	Box 555, Gadsden 35902
Fayette	Dr. J. B. Robertson (H. O.)	Box 351, Fayette 35555
Franklin	Dr. R. E. Harper (H. O.)	Box 100, Russellville 35653
Geneva	Dr. C. D. McLeod (H. O.)	Box 386, Geneva 36340
Greene	Dr. S. J. Williams (H. O.)	Box 269, Eutaw 35462
Hale	Mr. J. P. Chism (H. Adm.)	Box 87, Greensboro 36744
Henry	Dr. W. J. Donald	Box 86, Abbeville 36310
Houston	Dr. W. J. Donald	Box 2087, Dothan 36302
Jackson	Dr. W. J. Donald	Box 416, Scottsboro 35768
Jefferson	Dr. J. C. Chambers (H. O.)	Box 2591, Birmingham 35202
Lamar	Dr. J. B. Robertson (H. O.)	Box 548, Vernon 35592
Lauderdale	Dr. J. S. Herring	Box 1036, Florence 35630
Lawrence	Dr. W. J. Donald	Box 308, Moulton 35650
Lee	Dr. C. F. Floyd (H. O.)	Box 2207, Opelika 36801
Limestone	Dr. W. J. Donald	Box 932, Athens 35611
Lowndes	Dr. J. B. Dismukes (H. O.)	Box 35, Hayneville 36040
Macon	Dr. Ruth R. Berrey (H. O.)	Box 27, Tuskegee 36083
Madison	Dr. O. F. Gay (H. O.)	Box 425, Huntsville 35804
Marengo	Dr. S. J. Williams (H. O.)	Box 454, Linden 36748
Marion	Dr. J. B. Robertson (H. O.)	Box 103, Hamilton 35570
Marshall	Dr. W. J. Donald	Box 46, Guntersville 35976
Mobile	Dr. G. W. Newburn (H. O.)	Box 4533, Mobile 36604
Monroe	Dr. E. F. Goldsmith (H. O.)	Box 351, Monroeville 36460
Montgomery	Dr. O. L. Burton (H. O.)	Box 4008, Montgomery 36104

County Health Officers and Administrators (Continued)

County	Health Officer or Administrator	Address
Morgan	Dr. Betty W. Vaughan	Box 577, Decatur 35602
Perry	Mr. J. P. Chism (H. Adm.)	Box 119, Marion 36756
Pickens	Dr. S. J. Williams (H. O.)	Box 192, Carrollton 35447
Pike	Dr. C. D. McLeod (H. O.)	Box 425, Troy 36081
Randolph	Dr. J. G. Baxter (H. O.)	Wedowee 36278
Russell	Dr. C. F. Floyd (H. O.)	Box 548, Phenix City 36867
St. Clair	Dr. W. J. Donald	205 19th St., North, Pell City 35125
Shelby	Dr. J. D. Rayfield (H. O.)	Box 976, Columbiana 35051
Sumter	Dr. S. J. Williams (H. O.)	Box 340, Livingston 35470
Talladega	Dr. J. D. Rayfield (H. O.)	Box 975, Talladega 35160
Tallapoosa	Dr. W. J. Donald	Box 125, Dadeville 36853
Tuscaloosa	Dr. W. C. Baty, Jr. (H. O.)	607 10th St., East, Tuscaloosa 35401
Walker	Dr. S. D. Waldrop (H. O.)	Box 686, Jasper 35501
Washington	Dr. W. J. Donald	Box 417, Chatom 36518
Wilcox	Dr. J. S. Ross (H. O.)	Box 27, Camden 36726
Winston	Dr. S. D. Waldrop (H. O.)	Box 57, Double Springs 35553

BRANCH OFFICES

County	Address
Baldwin	Box 551, Foley 36535
Barbour	Box 238, Eufaula 36027
Bibb	Box 397, West Blocton 35184
Chambers	Valley Health Center, Box 586, Shawmut 36876
Coffee	Box 106, Enterprise 36331
Escambia	Box 443, Atmore 36502
Lee	Box 206, Auburn 36830
Randolph	Box 68, Roanoke 36274
St. Clair	Box 249, Ashville 35953
Talladega	109 So. Anniston Ave., Sylacauga 35150 803-3rd St., S. W., Childersburg 35044
Tallapoosa	East Tallassee Carrville City Hall, Carrville, Alabama 36023

Smell A Rat?

Are there really eight million rats in a city the size of New York?

Probably not, reports the Health Insurance Institute on the basis of recent government studies. A more rational estimate would be a million, give or take a few thousand.

The eight million estimate, frequently quoted during the city's recent sanitation strike, may be the result of a survey made in London during the 1920s.

At that time the results indicated there was one rat per person in London.

A more recent survey, by the U. S. Public Health Service five years ago, put the New York City rat population at ½ million.

The U. S. Department of Interior thinks it's closer to 1½ million.

But no one can say for sure.

New York City has just hired an expert to try. He'll decide if it's possible to count the rats with a degree of accuracy.

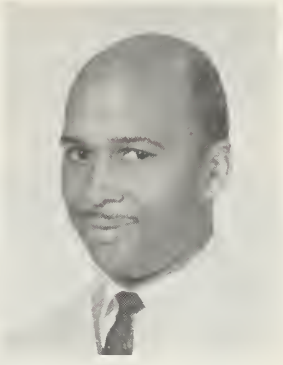
—Reprinted from Health Insurance News

around the state

New Physicians Licensed To Practice In Alabama



Max Worrel McCord, Jr., M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners—Location undetermined (presently serving in Vietnam.)



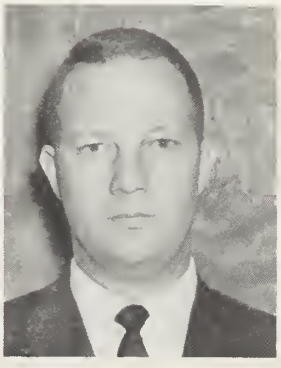
Marion Louis Carroll, Jr., M. D., Meharry Medical College, 1964, Reciprocity with Georgia—Intends to locate in Mobile.



Robert Shelby Harlin, M. D., Tulane University School of Medicine, 1961, Reciprocity with Louisiana—Intends to locate in Mobile.



Thomas Metcalfe Harris, M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners. After Dr. Harris has served his obligation with the U. S. Navy, he will return to Alabama in fulfillment of his Alabama State Medical Scholarship.



Thomas Bradley Fulkerson, Jr., M. D., Medical College of Alabama, 1966, Reciprocity with National Board of Medical Examiners, 1967—Intends to locate in Birmingham.

PICTORIAL REVIEW OF OB-GYN ANNUAL MEETING



The Alabama Association of Obstetricians and Gynecologists Annual Meeting held in Montgomery attracted such notable speakers as: (1st row, left to right) Dr. Donald A. Goss, Professor and Chairman, Department of Obstetrics and Gynecology, Vanderbilt; Dr. John L. Lewis, Jr., Chief, Gynecology Service, Memorial Hospital for Cancer and Allied Disease, New York; Dr. Felix Rutledge, Chief of Gynecology, M. D. Anderson Hospital and Tumor Institute, Houston, Texas; Dr. Joe Perry, Montgomery; Dr. Gary D. London, Associate Director for Family Planning, Office of Health Service Program of the Office of Economic Opportunity; (2nd row) Dr. Herbert Thomas, Birmingham and Dr. Tom Bolding (not shown), Birmingham.





AA OB-Gyn officers and directors gathered for a breakfast business meeting.



The last official duty of out-going president, Dr. David Dunn, Montgomery (left), was to congratulate and turn the gavel over to in-coming President-Elect, Dr. Seldon Stephens, Jr., Mobile.



Physicians, wives and guests ended the annual meeting by attending a barbecue and dance at the home of Dr. Dunn.

Dr. Barker Medical Center's 1968 Distinguished Faculty Lecturer

One of the nation's recognized authorities on metabolism of thyroid hormones, Dr. Samuel B. Barker, has been selected by his colleagues at the University of Alabama in Birmingham Medical Center as the 1968 Distinguished Faculty Lecturer. At the Medical Center Dr. Barker is director of graduate studies and professor of physiology and biophysics. He also holds titles of associate dean of the Medical College and School of Dentistry and associate dean of the Graduate School, University of Alabama.

Dr. Barker was honored at a banquet on the evening of March 29, at the Parliament House and delivered a lecture entitled "Perspectives."

The Distinguished Faculty Lecture award is conferred annually in recognition of the accomplishments of Medical Center faculty members, evidenced by the advancement of frontiers of health and science, and for meritorious contributions to the University of Alabama through education, research and public service.

Announcement of Dr. Barker's selection as this year's Distinguished Faculty Lecturer was released by Dr. Paul E. Hammons, professor of dentistry, and chairman of the Distinguished Faculty Lecture committee at the Medical Center. The committee consists of representatives of the five major units of the Medical Center—the Medical College of Alabama, the School of Dentistry, University Hospitals and Clinics, the School of Health Services Administration and the School of Nursing.

"It is indeed appropriate that Dr. Barker, who has devoted his career to academic medicine and has distinguished himself as an outstanding and internationally known scientist, be recognized by his peers as the Distinguished Faculty Lecturer. The committee announces with pride the selection of this outstanding educator-scientist as the Distinguished Faculty Lecturer of 1968," the statement read.

After serving at the University of California as a Krichesky Fellow, Dr. Barker joined the Medical College of Alabama faculty in 1952 as professor of pharmacology and served in this capacity until 1961 when he took leave of absence to become a special National Institutes of Health Fellow in Endocrinology at the University of Edinburgh, Scotland. He returned to the United States a year later and became N. I. H. Research Career Awardee and professor of pharmacology at the University of Vermont College of Medicine. Dr. Barker rejoined the UAB Medical Center faculty in 1965 as director of graduate studies, associate dean of the Medical College and School of Dentistry, and professor of physiology.

Dr. Barker was graduated *cum laude* from the University of Vermont in 1932 and four

(Continued on Page 1418)

To fight TB- find it first!

Make tuberculin testing routine with every physical examination.



TUBERCULIN, TINE TEST (Rosenthal)

Side effects are possible but rare: vesiculation, ulceration, or necrosis at test site. Contraindications: none, but use with caution in active tuberculosis. Available in 5's and 25's.

Lederle

330—8/6135

(Continued from Page 1417)

years later earned his Ph.D. at Cornell University. In addition to having served on the faculties at Vermont and Alabama, Dr. Barker was a faculty member at the Cornell University Medical College, the University of Tennessee College of Medicine and the State University of Iowa College of Medicine.

Active in the development of the National Institutes of Health extramural programs, Dr. Barker has served as a consultant scientist since the inception of the Institutes in the mid-40's. He has published extensively in the scientific literature.

Dr. Barker is a past chairman of the Alabama Section, American Chemical Society; a past president of the Alabama Academy of Science; and former vice chairman, Engineering Council of Birmingham. He is also a Fellow of the American Association for the Advancement of Science, a member of the American Physiological Society and the Endocrine Society, plus other scientific organizations. He was elected to membership in Phi Beta Kappa and in the national scientific honorary fraternity, Sigma Xi.

Dr. Barker is the fifth Distinguished Faculty Lecturer of the Medical Center. Others receiving this tribute were: Dr. Tinsley Harrison, 1964; Dr. Champ Lyons, 1965; Dr. Joseph F. Volker, 1966; and Dr. T. E. Hunt, 1967.

Calendar of Annual Meetings

Medical Association of the State of Alabama

1969, April 24-26, Carriage Inn, Huntsville

1970, April 30-May 2, Mobile

1971, April 22-24, Birmingham

1972, April 20-22, Montgomery

1973, April 18-21, Mobile

Spots Curbed

Americans have been seeing fewer spots before their eyes, the Health Insurance Institute said today.

It is due to the U. S. Government's nationwide campaign to wipe out measles (rubeola) through vaccination immunization, especially among children.

According to the U. S. Department of Health, Education, and Welfare, reported cases of measles were down to 37.4 per 100,000 population last year, compared with 104.2 in 1966.

The government noted that this was the first time that there were fewer than 100 cases of measles per 100,000 of population since reporting of measles began on a national basis in 1912.

—Reprinted from Health Insurance News

EXCELLENT OPPORTUNITY FOR AN INDUSTRIAL PHYSICIAN

Expanding nationally known company located in the Tennessee Valley has immediate opening for qualified full time Industrial Physician. Modern medical facilities with professional nursing and technician staff. Starting salary $20,000 or more depending on experience. Excellent hospital and schcol facilities with ample cultural, social and recreational activities available.

An Equal Opportunity Employer

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA

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After the picnic
even Gramps
Was a victim of
intestinal cramps

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Mental Retardation: ". . . The Most Handicapping Of All Childhood Disorders"

A handicapped child is not always distinguishable by such things as crutches and braces, a hearing aid or smoked glasses. Several million youngsters without physical signs of misfortune are nevertheless handicapped. Only the indications of their disability are expressed inward rather than outward—they are mentally retarded.

"In terms of magnitude, mental retardation is the most handicapping of all childhood disorders," according to George Tarjan, M. D., professor of psychiatry at the University of California.

Adds Julius B. Richmond, M. D., head of Project Head Start and vice chairman of the American Medical Association's Council on Mental Health: "There are approximately five and a half million mentally retarded children and adults in America; and about 126,000 babies are born each year who will be retarded.

"But these are only the recognized cases. It is speculated that there is probably a much larger number who are not functioning well intellectually but who have not been identified as retarded for one reason or another."

While the vast extent of retardation may require speculation, our means of attacking the problem today are well defined.

Since 1963, when federal matching funds became available, all branches of medicine in alliance with government and voluntary agencies have been working to establish comprehensive care centers that will extend help for the mentally retarded into every community.

We're still a long way from this goal. But the fact that community-oriented centers have become the focal point in the campaign against mental retardation is in itself significant. For there is well-nigh unanimous agreement among experts that such centers offer the best prospects for success.

The apparent suddenness of all this may well raise the question: "Why has it taken so long?"

There is no simple answer, Drs. Richmond and Tarjan made clear in an interview at an AMA conference to establish guide lines for community-oriented centers. Before it could even be firmly established that mental retardation was vulnerable to attack, a whole series of developments, both scientific and sociological in nature, had to occur, they pointed out.

Not the least of these is the fact that retardation literally had to come out of hiding. For centuries the general notion persisted that a retarded youngster somehow represented a shameful stigma whose very existence must be kept secret. And the myth is not entirely dead yet. Many parents who should be seeking help for retarded youngsters are concealing them instead.

Another factor that prevented an earlier all-out attack is the subtlety of mental retardation.

"Strictly speaking it is not a disease or a diagnosis but a fundamental disorder," said Dr. Richmond. As such, he explained, retardation is definable only in terms of intellectual levels of function. This has the effect of making rigid standards for determining retardation impossible, although in a general way the degree of retardation is measurable in terms of "I.Q." (A score of less than 70 is usually considered an indication of retardation.)

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A Science Feature Article prepared by the Communications Division, American Medical Association.



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"Generally speaking, some children are born retarded; others acquire it after birth due to environmental factors," Dr. Richmond continued. "Part of the complexity of coming to grips with mental retardation has been trying to define how much stems from birth and how much is due to environment.

"Also, it must be remembered that until relatively recently medicine of necessity was largely preoccupied with lifesaving efforts. Not until we learned to control such things as infectious diseases and nutritional disorders in childhood was there time and energy enough to develop the sophistication to come to grips with the more difficult and complicated problems of retardation."

Without a clear understanding of the disorder, and with parents usually unwilling to voice any suspicions they might have about their child, it was often difficult to recognize a retarded youngster until his entrance into school made his condition all too evident. Then "doing something" was usually all but futile.

Fortunately the detection of some forms of retardation can now begin before a child is a year old. And with proper care during the early formative years—care aimed at "maximizing the abilities that a child possesses"—many youngsters, who a generation ago would have been headed toward hopeless retardation, can enter school with prospects for making progress.

Perhaps even more significant than the growing ability to diagnosis and help the retarded child, however, is the growing belief that most cases of retardation need never have happened. In theory, at least, more than half of all cases of mental retardation are preventable.

"It's true that we still have much to learn," said Dr. Richmond. "But because we don't know everything about retardation doesn't mean we can't do something. After all, medicine could treat rickets before it knew the disease was caused by a vitamin deficiency.

"With what is now available," added Dr. Tarjan, "care for the retarded need no longer remain in the hands of specialists. The general practitioner, the pediatrician, or any other physician, for that matter, is now in a position where he can care for the whole child—not only the child's physical condition but his mental abilities as well."

It is this fact as much as anything else that has revolutionized our approach to the treatment of retardation. For when the family physician is in a position to handle the needs of a retarded child, then community care becomes much more of a possibility.

Not that the family physician can do it all. Community care implies community endeavor, and help must come from many sources including educational and social service organizations, state and federal agencies and volunteer groups.

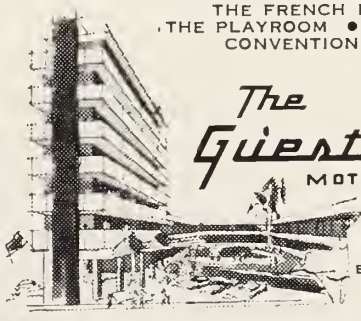
"Much of what must be done in the field

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of retardation obviously goes beyond the physician's office and becomes involved with most, if not all, aspects of community life," is the way Dr. Richmond explains it. "The physician can best organize the specific program to fit the requirements of the individual retarded. But to be effective, the components of care that are needed must be available, and the physician must be aware of them."

The emphasis on community care, as opposed to the earlier concept of institutional care, stems from numerous studies which have shown that the retarded respond best when modern techniques are employed in the familiar atmosphere of his day-to-day life, including his life at home.

This means that the larger centralized institutions no longer can or should remain the focal point for care of the retarded, according to Dr. Tarjan, former director of one of the nation's largest institutions for the mentally retarded.

"As a matter of fact, retardation is largely a community problem right now, although it's not always recognized," he said. "Only four per cent of our five and a half million mentally retarded are in institutions. There are no facilities for the other 96 per cent, including those who have grown from retarded children into retarded adults. Since these people are inevitably part of a community, their problems necessarily become the community's problems as well.

"What is required, in a sense, is bringing the 'institution' to the community—or rather some of its parts such as diagnostic, therapeutic and special education facilities.

"But we have to furnish some new services too. Parents, for instance, will have to be educated in the care of their retarded child since he will be at home for the most part."

Few communities at this time can provide more than a fragment of the needs of the retarded. But with the new impetus supplied by psychiatry; with matching state and federal funds for clinics and centers, and for educating the specialists who will staff them, medical leaders feel that comprehensive community care centers are within grasp.

Aside from the obvious benefits to the retarded, community centers also offer several other advantages. One of these is that ultimately the cost of community centers may well be less than the price of building more and more centralized institutions to care for the ever-growing number of retarded.

Through the community approach it will be possible in many cases to use existing medical facilities—establishing a clinic in a local hospital for instance rather than building a whole new one. Also, communities, unlike institutions, will be better able to tailor programs to meet actual rather than theoretic needs.

It may even turn out that the needs will diminish under an intensive community program. Months of care early in life can frequently do more than years of therapy later on; and one of the advantages inherent in community centers is the availability of care. But above all, with better counseling and diagnostic services available in a community there may be less actual retardation, since this disorder is highly susceptible to prevention.

To understand why, it is necessary to understand the causes of retardation.

"There are about 200 known specific causes of retardation," said Dr. Tarjan. "Sometimes a single factor is involved, sometimes a combination of factors. Basically, however, all fall within two general categories—those arising from biological factors, such as disease and accident, and those stemming from deviant psycho-social development."

The biological causes that can be identified, he said, account for about 20 to 25 per cent of the mental retardation in this country. These include Mongolism, prematurity and

congenital malformations of the brain, phenylketonuria (PKU), congenital syphilis, measles, poisoning—in particular lead poisoning—and RH or other blood group incompatibilities.

Except for Mongolism (a chromosomal disorder that may go back to the moment of conception) and some congenital malformations, these diseases are treatable or preventable, he pointed out.

PKU—an inborn deficiency which prevents the body from neutralizing certain poisonous substances and which leads to brain damage—can be controlled by simple changes in diet; and RH incompatibilities by replacement blood transfusion.

With new vaccines, measles is largely preventable, and congenital syphilis—another disease which attacks the brain—can be cleared up in the mother before she gives birth, providing she sees a physician in time.

As for the others, prematurity can often be prevented by proper prenatal care; and the danger of lead poisoning—usually the result of a child eating plaster or paint chips—could be largely eliminated with a little household maintenance.

When it comes to lack of emotional development—the source of 75 to 80 per cent of the mental retardation in this country—the line of attack is not so clear cut as with biological causes. Disease elements are usually tangible, specific. Not so the elements of human nature, and in the case of mental retardation this means the nature of the parents.

"We know," said Dr. Tarjan, "that most cases of retardation have something to do with the early experiences of children. It particularly seems to have to do with the child's learning—the early transmission of information from parents to child."

Explains Dr. Richmond: "The brain of a child doesn't just develop, it has to be stimulated into developing. In the homes of many

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retarded children we don't find this stimulation—this vital transmission of information."

Paramount in the early stimulation of a child is talk—the cooing and prattle that most mothers seem almost instinctively to lavish upon their babies.

"All babies, except those with congenital disorders, start out about the same, babbling and cooing," said Dr. Richmond. "But if the child is not encouraged—if he's not coddled, cooed at and talked to—even his babbling starts falling off after a year or so. He won't make an effort to talk without hearing talk."

The importance of talk is hard to overemphasize. For it is difficult, perhaps impossible, to think coherently without words.

"Vocabulary and the linking of words," says Dr. Tarjan, "are tools of learning. If these tools aren't developed, the child can't develop."

In effect, the youngster becomes walled off from the world about him. Interest, curiosity, emotion and intellect—the very forces that help make man what he is—are given no chance to develop in such a child. In a word, he is retarded.

"It is theorized," continued Dr. Tarjan, "that the more complex the early input, the greater the baby's curiosity, interest and imagination, and the greater the eventual output by the child."

"Of course, it's also possible to overcoddle the child," said Dr. Richmond. "He can be pushed too hard—made to develop too fast. Because a rich stimulation of a child is good doesn't mean that more stimulation is better. A child can be over stimulated, and this creates its own set of difficulties."

Actually, even the ability to define causes is not enough. For the roots of the causes, whether biological or mental, become entwined in other factors—in particular social and economic factors, said Dr. Tarjan.

The pressures of subsistence, worry and the resultant problems can help spawn mental retardation in many ways. They can divert parental interest away from the child instead of toward him. They can contribute to sub-standard housing—to cracked and peeling walls that invite lead poisoning. They can lead to a reluctance to seek out that all important prenatal care for the expectant mother and pediatric care for the newborn child.

But whatever the roots, social, economic or parental lapses; whatever the causes, emotional or physical, this point remains: Retardation, like cancer, can often be reversed if detected early enough, and like polio can often be prevented with forethought.

It is along these lines that medicine is mobilizing. The conquest will not be spectacular. In contrast with many breakthroughs against physical disease, progress may seem plodding. There is no vaccine that will all of a sudden overwhelm retardation.

Still, there is the promise that inevitably we can, by and large, strip from the minds of children that impairment responsible for an ever-growing number of today's handicapped children.



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AMA Volunteer Physicians for Vietnam is a program for supplying medical care to the civilian population of South Vietnam through the volunteer services of U. S. physicians.

It is administered by the American Medical Association and financed by the United States Agency for International Development (USAID).

Physicians sent to South Vietnam under the program serve a 60-day tour of duty at one of 18 provincial civilian hospitals. The volunteer receives only his transportation and an expense allowance of 10 dollars a day; otherwise his services are entirely unpaid.

At the hospitals the volunteers will work with teams of military physicians and corpsmen. These teams, assigned to USAID for service in provincial civilian hospitals, provide continuity in the volunteer program.

Twenty-four to 32 physicians are needed every sixty days to keep hospital staffs at full strength. Most needed are general practitioners, internists, general surgeons and orthopedic surgeons. Small numbers of specialists in other fields are needed from time to time and inquiries are invited in anticipation of future demands. Non-physicians are not recruited.

Information about the program may be obtained by contacting: AMA Volunteer Physicians for Vietnam, American Medical Association, 535 N. Dearborn St., Chicago, Illinois 60610.



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Drug-Dependent Patient Unveiled At AMA Meet

The 14th Annual Conference of Mental Health Representatives of State Medical Societies, held March 15-16 at The Drake Hotel in Chicago, featured the unveiling of a newly created medical exhibit—The Drug-Dependent Patient.

The idea for the exhibit originated with the AMA's Department of Mental Health and later was developed more extensively by the Council on Mental Health in cooperation with the Exhibits Section. Various diagnoses and treatments relative to the use of narcotics, sedatives, stimulants and hallucinogens by drug-dependent individuals, highlight the illustrated display.

The 10-foot exhibit, designed primarily for loan to state and county medical societies, also will be presented at the AMA Annual Convention in San Francisco this June. Although not available for booking until after July 1, it should be noted that two months' advance notice is necessary to allow ample time for the completion of appropriate arrangements. It is provided on a complimentary basis—except for round-trip freight charges involved in shipping—but is limited to a two-week showing.

Pertinent booking details may be obtained by contacting the Exhibits Section, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.



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Graduate Program In Hospital Administration Approved

The University of Alabama in Birmingham School of Health Services Administration has been informed that its graduate program in hospital administration has been approved for membership in the Association of University Programs in Hospital Administration.

The AUPHA is a consortium of leading universities which support the continued development of health care through graduate education. Administrators for hospitals and other health facilities, Blue Cross and commercial health insurance organizations, welfare health care programs and other medical care programs, as well as community health planners, are trained in AUPHA member universities.

In 1948, seven universities then offering graduate education in hospital administration organized the AUPHA. With the addition of the University of Alabama in Birmingham program, there are now 20 member universities in the United States and Canada. The original programs have since expanded to provide graduate education for broad management, administrative, and research responsibility in the total voluntary and public sectors of the delivery of health services systems of this country and Canada.

Matthew F. McNulty, Jr., Dean of the School of Health Services Administration, and Professor of Hospital Administration, indicated that the faculty and staff of the Graduate Program in Hospital Administration at the University of Alabama in Birmingham were encouraged that the UAB program had moved quickly to national acceptance. The School of Health Services Administration Graduate Program was initiated less than three years ago in June, 1965. "Membership in the AUPHA," Dean McNulty said, "is a significant achievement for any academic program in health services administration."

The Graduate Program in Hospital Administration at the University of Alabama in Birmingham School of Health Services Administration offers the Master of Science in Hospital Administration degree upon successful completion of eight quarters of academic study. Following a three month summer clerkship in the University of Alabama Hospitals and Clinics, students are offered a range of 15 graduate courses providing an opportunity for specialized concentration. Concurrently a spectrum of intimately related interdisciplinary courses are available. For the development of knowledge of operating management and administrative responsibility, there is a required 12 months administrative residency developed for the individual interest and need of each student. During the residency a thesis is written. The student must pass a comprehensive oral examination, defending both the thesis and the total program subject matter.

Walter F. Robbins, Associate Professor and Chairman of the Graduate Program Department, indicated that the program was now preparing for admission of the fourth class. There are three alumni of the 1967 graduating class, five students of the 1968 class in resident status, and seven students of the 1969 class in the academic first year. More than 150 applications have been received for the 1968-1970 class starting June of this year. This will be the fourth class admitted to the rapidly developing new program. An enrollment of 15 is anticipated.

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An all new homelike psychiatric residence located on a lovely five-acre tract inside the city, providing a comprehensive range of services, including inpatient (28 beds), day care, and outpatient treatment. The therapeutic setting is an open community one with no provisions for locked wards. Each patient participates in an intensive treatment program consisting of individual pyschotherapy, group psychotherapy, topical small group discussions, occupational therapy and recreational therapy, and other group activities in the Center as well as in the community, depending on individual interests and needs. Drugs are used when appropriate.

Any individual may be admitted who, in the opinion of the staff, might benefit from the services provided in this particular setting. This can best be determined by a preadmission consultation with the person and a responsible member of his family.

Brochures and rate schedules are available on request.

Leonard T. Maholick, M. D.
Medical Director

Maj. Gen.(Ret.) Howard Snyder
Administrator

THE BRADLEY CENTER, INC.
2000 Sixteenth Avenue
Columbus, Georgia 31901
Area Code 404 - 324-4882

The AMBAR SCRAPBOOK of

Obesity Oddities

FACT & LEGEND



CNTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

n Ambar Extentab before breakfast can el control most patients' appetite for up 2 hours. Methamphetamine, the appe- tesuppressant, gently elevates mood and els overcome dieting frustrations. Pheno- arbital, the sedative in Ambar, controls irritability and iety...helps maintain a state of mental calm and equa- ity. Both work together to ease the tensions that erode willpower during periods of dieting.

available: Ambar #1 Extentabs®—methamphetamine rochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warn- may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

A. H. ROBINS COMPANY, RICHMOND, VA. 23220 A·H·ROBINS

Open-eyed nights





Too tense to sleep...too tired to get up. Early to bed, late to rise, and not much sleep at that, the patient with severe psychic tension is understandably tired. His tensions and overreactions to the day's stresses may interfere with proper sleep, and his inability to face the day's activities can produce an ever-worsening pattern. By relieving psychic tension, Valium® (diazepam) facilitates sleep, particularly with an h.s. dose. In many patients, the usefulness of Valium has been demonstrated in relieving psychic tension alone or with secondary depressive symptoms. Valium is generally well tolerated and, with proper maintenance dosage, usually does not unduly impair mental acuity or ability.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindications: Known hypersensitivity to drug; children under 6 months of age; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in treatment of psychotic patients, and should not be employed in lieu of appropriate treatment. As with most CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may also be associated with temporary increase in frequency and/or severity of seizures. Advise patients against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance. Keep addiction-prone individuals (such as drug addicts or alcoholics) under careful surveillance because of their predisposition to habituation and dependence. Use of any drug in pregnancy, lactation or in women of childbearing age requires that potential benefit be weighed against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants. Employ usual precautions in the severely depressed or in those with latent depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

Adverse Reactions: Side effects most commonly reported: drowsiness, fatigue and ataxia. Infrequently encountered: confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo and blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, use of the drug should be discontinued. Because of isolated reports of neutropenia and jaundice, periodic blood counts and liver function tests are advisable during long-term therapy. Minor changes in EEG patterns (low-voltage fast activity) observed during and after therapy and are of no known significance.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50, 100 and 500.

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Valium®(diazepam)

useful for the relief of psychic tension, alone or with associated depressive symptoms

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